

THE AMERICAN School Board Journal

Founded March, 1891, by WILLIAM GEORGE BRUCE

Volume LXVII, No. 1

JULY, 1923

Subscription, \$3.00 the Year



SOME SCHOOL VACATION REFLECTIONS.
"On the Job All Summer."

The New Phrase: "Selling the Schools"

Leo G. Schussman.

Every now and then a new word or phrase is coined, ejected upon the current of thought and, like a piece of driftwood caught in an eddy, it whirls around with such "dazzling" attraction as to enthrall even people who ordinarily think for themselves. It sometimes appears that education is affected in this manner even more than is any other line of human activity, for every now and then some "happy" phrase or striking expression is precipitated into the discussion of educational matters to be gyrated round and round in each of the several phases of pedagogical discussion with an unending monotony.

Sometimes good is accomplished, but most of the time there is a deplorable inanity in this universal reiteration of the euphonious catch phrase which leads one to believe that ordinarily the auditory centers are the sum and substance of thought and brain action. It raises the question of whether with all of our advanced educational and intellectual opportunities we have really produced an over-supply of individuals who can think for themselves.

Take that overworked phrase of "lack of leadership" which is used, not only by astute critics within our ranks, but by their echoes in the editorial sanctum and other centers of discussion outside of the school, to conclusively explain why the public schools are "failing" to do anything but spend money, why Wisconsin is umptysteent on the dial of the "Weigher's" scale. Leadership is without doubt one of the basic elements in successful school work of any type from the kindergarten up to the university, but it is no more or no less elemental than it is in any other line of human endeavor, and cannot explain even in a rudimentary measure the why and wherefor of a failure so extended and complex as has been so glibly laid up against the public schools.

Furthermore, there is not more of a general or specific "lack of leadership" in our public schools than there is in any other line of activity. We really get nowhere by merely saying that it is a lack of leadership which is responsible for all the ills to which the public schools are subject. A bland expression of this sort lends itself quite readily to a type of mud-slinging which requires no real understanding of the situation and still less of a desire to play fair.

But, judging by the widespread habitat of this new will-o-the-wisp which is supposed to locate accurately and bound definitely the dead bones in executive positions from which the deleterious miasma is said to arise and poison our entire public school system, we are confronted with a situation which calls for some scientific analysis before accepting on its sonorousness alone.

We are prone to take an apt phrase as expressive of the verities of life and pass it on as gospel truth on the deep-mouthed sounding of its phraseology or the scintillating bombardment of its wit. Too often it is quite sufficient that some one posing as in authority, or one merely flapping in the limelight, shall propound or repeat one of these pungent agglomerations of words, and, lo! immediately a host of self-heralded discoverers of the obvious join in the chorus even as wielders of the baton, and for them from that moment the conclusive argument has been propounded and the solution proclaimed in reverberating cadenza.

The din becomes so insistent that it penetrates even the noisy whirring of the gigantic mechanism of the daily news or magazine ed-

itorial and press room, and presto, hosts of American citizens are regaled with a "popularized" version of the lamentable failure of the leaders in our public schools, a sort of Eskimo pie dish which must be gulped down before it gets too mushy, there being no time to think lest the loss of cold-storage effect may result in unfortunate experiences.

What is said makes so much noise that one has no chance to determine what is thought. The easy way on the part of the people is, of course, to accept it with that political fidelity demonstrated in the recent election, viz: "This is true because I say so." To believe along these lines requires no activity on the part of the nerve cells from the neck up, a very cogent explanation of what is commonly denominated as the "popular mind."

Then who has not heard this gem, "Sell your Schools"? Even the most imperfect auditory mechanism must have been repeatedly "touched," for it has reverberated from one massive dome engrossed in educational thinking to another just as massive and, dare it be suggested, just as hollow?

How well this phrase sounds! It really has the din of the market; indeed, it is quite urban in its intonations. It smells of gasoline, that olfactory adjunct of modern progress. It has the flashing smile of the young lady at the necktie counter. Just sell your schools! How perfectly obvious! All the administrator (should he be called the intellectual realtor?) needs to do is to sell his school to his anxiously expectant buying public and the trick is turned. Henceforth he may place his feet upon his desk and let the rest of the world go buy.

Carried to its logical conclusion, all the teacher needs to do is to sell her class or grade to the superintendent, and the pupil but needs to sell his lessons and himself to his teacher, that what he has to offer is just the stuff she really needs and wants, get her to accept it and pay him in full in marks, usually as fluctuating in actual value as its monetary namesake.

Thus the problem of rating, passing and the like is easily solved to the satisfaction of all concerned. The whole thing is so simple, really it makes one's head swim. Anon, we may hope to have bargain counters, sales coupons and trade stamps in education to induce more rapid buying on the part of our dear public.

That it takes two to make a sale seems to be non-essential. Just sell your school. Make the public think that it wants your wares and your professional credit will be thereby enhanced. That it takes goods all wool and a yard wide is of little moment; put the sale across; let value take care of itself; sell what you have and get by with it. Don't waste more valuable time trying to meet the multitudinous questions which crowd in upon the average school man who sincerely wants to give his community the best schools that can be given within the limitations, financial and otherwise, which are peculiar to his particular bailiwick.

There is something pathetically ludicrous in the manner in which this splendidly sounding echo from the commercial shambles has been seized upon and heralded far and near as the solution of the entire educational problem. Indeed, we hear that oracular utterance from every rostrum, see it spread over the pages of our educational journals with Couéistic insistence, and we dream it, utterly failing to realize the nightmare in it.

Emerson was probably wrong and is no doubt out of date when he says that let one produce something worth while and the public will wear a path to his door even if his workshop be in the middle of a forest. Perhaps all the world wants now is to be sonorously entertained while it is being sold; all we need to do is to titillate the risibilities of the indulgent and gullible public to put across a sale. The crux of the matter is that this high-sounding slogan fails to emphasize the fact that quality of goods is of vastly more moment than merely putting across a sale. The trade cunning and semi-hypnotic influence necessary to sell a gold-brick does not fit in very snugly with the ideal of service which must ever be the true basis of the work of the schools.

Who has not a vivid recollection of that hat which the glib salesman sold him and which caused the good wife to fall into paroxysms of laughter on its first and only appearance, or some similar experience of being sold in true commercial fashion? There was a time in human civilization when to sell a man a horse with the heaves or a spavin was to invite physical violence.

While it is to be presumed that in the case of the schools there will be no imperfections of this type knowingly vended, yet merely selling a person a thing which he does not want, or the creation of a want for the article which will not stand the going down of the sun, or selling a person a thing which he thinks is different than it is represented, is hardly a safe basis for the contact and co-operation so vital in the relationship between the school and the community.

The school is distinctly not a finished product or process. No group of teachers or educators may hope to produce the kind of schools which will wear and also minister to the community, nor secure such a product in the market calling for the relationship of seller and buyer between school people and community.

Wants arise from needs and needs are sometimes unknown. Is it true that the average community does not know that it needs good schools? Is what is known as "Sell your schools" merely discovering to the people this unknown need? Perhaps, but as soon as "publicity" is needed to disclose the need for good schools, at that moment there must be good schools on hand either in the making or as a completed product. This is fundamental in the buying and selling idea.

But as soon as we analyze this slogan, a hundred and one aspects of the problem are raised, all of which become much more important than the selling; and the substance to be sold, the school, which is always in the making if it be a progressive school, remains the prime concern of the superintendent and teachers even as it has of old. Then the "new" panacea begins to be rated at its true value as merely a high-sounding catch-phrase. "Selling" the schools is the least important, delivering the goods is vitally essential.

Advertising and publicity are well, but the school man who relies upon these alone for his big lead is very apt to be painfully disillusioned when the public begins to test his wares. Wholesome publicity is in order but mere advertising tactics or selling conceptions are deadly to school work. "Four-flushing" may have placed a school man in the limelight for a short space but the white light is sure to singe, and the people may find the garment so cleverly put across is badly moth eaten. Rest assured when we school men become adept at tickling the bump of pomposity of our public through clever press agency we are necessarily not serving little children.

Buying Methods by which Quality can be Assured in Competitive Buying¹

J. M. Coyle, Assistant State Purchasing Agent, Trenton, N. J.

I do not attempt, in this paper, to offer any particular method that must be followed in order to assure quality in purchasing, when such purchases are made on the basis of competitive bidding. But, I will point out to you certain fundamentals and principles that must be borne in mind and used for guidance when buying is done on a competitive basis.

To intelligently discuss this question, we should be clear in what we mean by competitive buying, and what the dominant reason for competition is.

The buyer must know the article he is buying, either from his own knowledge or upon the best advice he can obtain from competent authority. He must know the sources of supply, and how to classify those sources of supply, on an equal basis. There is no equality in classifying the specialist with the irresponsible agent. Therefore, knowing his sources of supply, the buyer will class them according to the best information he can obtain in addition to his own knowledge. I do not believe it is honest competition to solicit prices and receive proposals from numerous and various sources of supply producing the article desired, without regard to what such sources of supply are. For illustration, if you desire to purchase a carload of school desks, I do not think it honest competition to permit any individual who sees fit to do so, to submit a proposal to furnish these desks. I believe the competition should be restricted to reliable sources of supply only.

I take it, that the universal reason for competition, primarily, is to obtain the best price, and secondarily, for comparative purposes on all prices. It must be patent, that unless your sources of supply are classified, your range of price will so vary as to be of no sound practicable use to you.

Therefore, we have, as a basis to start upon, a knowledge of the article to be purchased, knowledge of the sources of supply, proper classification of such sources, and the reason for seeking the competition.

How to Obtain Competition.

We now come to a method to be followed in obtaining the widest possible competition. Most public officials have no discretion in this. They are restricted by legislative strictures that not only prescribe how they shall solicit proposals, but, generally, prescribe the form to be used in soliciting such proposals. Under these conditions, there is very little that can be done by the public buyer, but I have never seen any regulations governing the soliciting of proposals by newspaper advertisement that would prevent the public buyer confining the acceptance of such proposals to a definite ability to furnish the items desired. By that, I mean, in explanation, that the advertisement could say, in place of the usual wording that "sealed proposals will be received" on a given date, for furnishing supplies, that the buyer could say that "sealed proposals" would be received from manufacturers or from wholesalers or from jobbers, or whatever channel of distribution the purchase would justify a limitation upon. If your purchase is of sufficient quantity to be attractive to manufacturers only to manufacturers of that particular item, comply with your statutory regulation of advertisement, by confining the receipt of proposals, only to manufacturers of that particular item.

¹Read before the National Association of School Business Officials, May 18, 1923.

Or, if the volume is not sufficient to attract manufacturers or original sources of supply, then you might restrict your proposals to the next class. The next step down the ladder, from the original source, would be the wholesaler or the jobber.

Again, I believe that a great many public buyers are hampered in their business by being compelled to accept a proposal from an agent, who, generally, has nothing with which to assure the buyer of his ability to furnish, other than the customary certified check required as a deposit. If the procedure under which the public official buys, does not limit him as to his method of obtaining competition, he is in a much better position to deal with his sources of supply, because he can then restrict his proposals to those whom he knows to be reliable and capable of furnishing what he desires.

Establishing Confidence.

The public buyer, under the general mode of attracting competition in vogue in this country today, is at a serious disadvantage in reaching a basis which the private or industrial buyer believes to be essential for successful purchasing; that is, the establishment of confidence, on the part of the source of supply, in the buyer, and likewise, the confidence of the buyer in the source of supply. If the bidder knows that the buyer is fully informed as to what he wants, and the purposes for which the article is to be used, he will, as a general rule, do his utmost to serve that buyer well. He will know that his product will be considered on its merits, and he will put everything into that product that he possibly can. If, on the other hand, the buyer has properly investigated the source of supply and knows its capability, its reputation and its facilities, he can return this same confidence in an equal degree, by being frank and honest in his relations with such source of supply.

The conditions under which a proposal is solicited must be clear and comprehensive. The article must be described, not in technical terms, intelligible only to a few limited technicians, but in language that can be clearly understood even by the layman. It has been my observation, that there have been very few occasions upon which technical and mysterious terms and symbols must be used in describing or specifying an article to be purchased. There must be as little restriction in the proposal as is necessary to properly safeguard the interests of the buyer. It is a mistaken theory that a public officer must load up his specifications and requests for proposals with a mass of conditions and restrictions, many of which are too often unenforceable. I have seen specifications prepared for use in certain States in this Union, that called for items to be furnished in accordance therewith, and at the same time, I knew, from my personal knowledge, that there was not an official or an employee in those states, that could tell, when the article was furnished, whether it met the specifications or not. The specifications were technical, the facilities for determining these features were not available to the states, and, consequently, the specifications were meaningless. You will inspire more confidence in your relations with the sources of supply, if you limit your conditions only to the necessities.

The Certified Check Evil.

Another feature of present-day buying by public officials, upon which too much reliance

is placed, is the posting of the certified check with the bid or proposal. This posting of a certified check is, in theory, an assurance that the bidder will enter into contract and furnish the goods. To my mind, it is no assurance of anything other than his financial standing with some bank. I have known of instances, not many, I admit, but some, in which the bidder, with a friendly endorser, borrowed from the bank, sufficient money to satisfy the check that was to be certified and posted. In those cases, it was not even an indication of financial ability, and, therefore, did not serve that purpose. I believe that where this method is followed and cannot be avoided, that in addition to the certified check, the bidder should furnish, at the time his proposal is received, further evidences of his ability to deliver, a statement, subject to verification as to his plant conditions, transportation facilities, and ability to obtain raw materials.

Along this line, let me say to you that the State of New Jersey, in placing its contract for coal for the next fiscal year, demanded from bidders, a guarantee that the mines from which the coal was to be delivered, had not contracted, in other directions, for more than fifty per cent of the normal output of such mines. This action was necessary to insure the State obtaining its deliveries, because there is no mine in the Pennsylvania region, that will receive a car supply sufficient to carry in excess of fifty per cent of its normal output. This coal contract was awarded, and on this basis, the State knows that there will be no car shortage, so far as this particular mine is concerned. It may not be known to you, but cars are not assigned for coal on a "hit and miss" plan; they are allotted on a systematic basis and car shortages do not apply as suddenly as dealers would have you believe.

I merely cite this as an instance where a certified check would not give the assurance desired, because no matter in what good faith the bidder acted, he could not supply coal unless he could get cars, and we had information as to the allotments of cars for the coming year.

Along the same line, the specifications upon which this coal was bought were prepared by the U. S. Bureau of Mines, and analysis will be made by the laboratory of that Bureau. This information, supplied the bidders, established a confidence in the State Purchasing Department that assured the bidder he would get fair and equal consideration. He also knows that with tests by the U. S. Bureau of Mines, that he will have to comply with the specifications, or his failure will soon be discovered.

Guaranteeing Quality and Delivery.

Suppose, despite this condition, that by some untoward circumstance, there was a bidder awarded this contract that was unscrupulous and in the parlance of the day, "took a chance" and delivered an inferior product. We protect ourselves by reserving the right to purchase in the open market, and proceed to reimburse the State for any addition in price, by action on the bidder's bond, which bond must be that of a reputable surety company. But, in addition, we have, in New Jersey, another penalty that is a simple thing, and yet we have found it most effective. When we find a bidder gives sufficient cause to designate him as undesirable, we list him as such in the records of the department, and he is deprived of the opportunity of doing any further business with the state.

This list is in two parts, one a temporary suspension from the list of available sources of supply, and the other a permanent listing as undesirable. Occasionally, circumstances will place a source of supply in a bad light with the buyer and consumer. This may be true of a large and reputable concern in whose employ some minor official may fail to fully appreciate the business.

A few years ago, the State of New Jersey, covering a period of several weeks, had considerable difficulty with deliveries made by a certain large packing company. These complaints not only affected quality, but they also were in relation to late deliveries or failure to deliver. The usual procedure of notifying the immediate branch responsible was followed, and this bringing no relief, complaint was made to the district supervisors, who were given an opportunity to adjust the trouble. Upon their failure to take the action which the Purchasing Department felt was due, this packing company was suspended from the list of bidders, for a period of three months. At the time for requesting proposals for the next period's supplies, the Purchasing Agent refused to accept a proposal from this company, because of its suspension. The action taken by the Purchasing Department was drastic, but most effective, because the records show that since reinstatement, this company has not failed in the least particular to comply, absolutely, with the requirements of the Purchasing Department. I believe, therefore, that a suspension from your list of desirable bidders is the most effective means you have to enforce delivery in all its phases, as required, and can always be safely resorted to, if the elements of confidence and good faith I have mentioned above are, for any reason, lacking.

Payment of Bills.

Of course, your business must be made desirable for the penalty to have any force. You can make your business desirable by making your purchases as large in volume as possible, with your deliveries calling for as little hand-



D. D. HAMMELBAUGH,
Harrisburg, Pa.
President, National Association of School
Business Officials.

ling and rehandling as is necessary, and last, but most important, by the prompt acknowledgement of your obligations and payment of your bills. I have heard many discussions in the past few years, as to the great attraction of discounting bills, from the standpoint of money saved. To my mind, the knowledge that you discount your bills and pay promptly, has much more value in bringing to you desirable sources of supply than in the dollars and cents you save by such discount.

Inspection and Rejection.

Lastly, the principle that must be laid down in assuring quality, is the feature of inspection and right of rejection. Inspection must be competent, and right of rejection must be absolute. I appreciate that it is not always feasible for the public buyer to make inspection on delivery, but if his facilities do not permit of him doing this with his own employees, he must then establish, among his receiving officers, a

relationship that will insure to him, their co-operation. This, very frequently, requires the greatest tact and diplomacy, but if the buyer bears in mind that he is in existence only for the assistance that he renders the user, he will not be averse to making all allowances for the whims, "fads and fancies" of the users. He must consider his position as an opportunity to render service to those he represents. He must not promulgate rules and regulations that will be irksome to his users, but in all such promulgations, he must give as much latitude as is consistent with his duty. If he can establish these cordial relations, he will find his receiving officers alert to detect attempts at substitution or deliveries of inferior quality. He must also, however, keep his receiving officers fully informed as to what is required, and if the product purchased be one that is subject to laboratory test or chemical analysis, he should be in a position to obtain the necessary samples for such test, with the least possible delay. In addition to this, he must, periodically, at *uncertain* times, make personal visitations and inspections, in order that both the source of supply and the user will know that their actions are subject to his scrutiny.

Now, to sum up all of this and to enumerate, as briefly as possible, these essentials and principles, I will say, in conclusion, that the results desired, as indicated in the subject of this paper, may be achieved by any method of buying that is based upon a clear knowledge of what competition is, and the proper application of such knowledge; by confidence in the buyer, attained by his knowledge of what he wants and his description of the same; by confidence in the seller; by the elimination of impossible restrictions and unenforceable conditions; by guarantees of ability to supply, other than those covering the financial standing; by making the business desirable; by the enforcement of a penalty that precludes an undesirable bidder from opportunity to get this desirable business; and, finally, by proper inspection and right of rejection.

A Plan of Procedure for the Inauguration of a Teacher Rating Scale and a Related Salary Schedule

Chas. A. Wagner, Superintendent of Schools, Chester, Pa.

Salary schedules for teachers usually are established before merit rating scales appear in school systems. Such procedure has the sanction of rather general practice, a practice which grew up when but one factor caused salary difference. The factor was years of experience or mere lapse of time. Effectiveness of the teaching figured in the matter in but one way: If the teaching was an entire failure the teacher was not retained. All the teachers who were retained secured the stipulated increase after the lapse of each specified experience unit of time, whether a year or a number of years. This was and still is, if it is anywhere in operation, a merely mechanical operation and falls far short of being a salary schedule which measures and rewards varying degrees of success between genius and a degree above failure.

Teacher rating by fixed scales and units is more than on the way. It has come and is coming at an increasing pace, if inquiries about how to do it are any indication. The last year has witnessed a multiplication of these inquiries by becoming eight to ten times as frequent. Very few days and no weeks pass without such

inquiries. Quite appropriately, therefore, does the SCHOOL BOARD JOURNAL afford space for setting forth a plan of procedure for the inauguration of teacher rating, especially between school terms, when new ideas find a readier hearing and an easier acceptance than when the set of mind for the year has partly taken place.

The Basis of Teacher Rating is Effectiveness of Teaching Effort.

Teacher rating is the extension of principles of efficiency to the work of teaching, and corresponds in education to the measurement of output in factory or store. The payment of wages on a time basis regardless of output has passed for all time, wherever industry or store must show a profit. If not already known such ways are in process of discovery or development. Cost of production and value of product for a time unit must be brought into comparison. Teacher rating scales are the reply of education to this universal and insistent demand. If value produced does not on the whole exceed cost, the enterprise is losing money. In education, as in business, efficiency imposes the obligation that a given outlay shall secure the largest possible

return. Earlier stages of industry permitted the easy method of waiting to the end of the year to see what the balance sheet might disclose. Present-day methods require that we be able to determine for a shorter cycle than the year whether or not operations show gain or loss. To be on an equality with business, education must satisfy business that the educative operations are being conducted to show maximum product for minimum cost. Business has imposed this obligation upon itself, and the educator who expects to appeal to business men for support of his educational program is striving to meet the same kind of a test.

In establishing this showing of effectiveness, the first consideration is given to the item in the school budget which absorbs the largest part of the school revenues, to teachers' salaries. It is as if a good manager should say, "We must find whether our funds are productively spent. Suppose we begin by investigating the largest single item of expenditure, teachers' salaries. We must, therefore, try to find a way to measure the efficiency of teachers, and then we shall be justified if we keep in our faculties only the

more efficient teachers, since that will be exactly equivalent to the store that keeps only its best sales persons, or the factory that keeps only the best workers." Such a manager would decide upon the starting point of his teacher rating scale at the right point, for the salary schedule is the device employed to make effective use of what the rating list discloses.

Starting the Interest in Teacher Rating.

Before any definite rating scale will interest a group of teachers, their interest and faith must be aroused to the perception that payment of salary on a basis of effectiveness of effort is the only fair way to the teacher and the district. Next they must be persuaded that such a plan of remuneration is possible and they must be convinced that it is already in operation. Teachers' meetings, reports of special committees to the entire body of teachers, explanatory addresses, illustrative materials, typical rating scales and salary schedules employed in other districts, and any form of agitation that will arouse and maintain interest in the subject, are useful in securing the attention of the teachers. The point to stress is that a proper rating scheme does enable a superintendent to make a just discrimination between a best, a better, a fair (or satisfactory) teacher, and to establish this difference in terms that the teachers themselves can recognize and are willing to admit. No mere salary schedule can ever do that, and hence it has come to pass that salary schedules have fallen into disrepute quite as often among superintendents as among teachers. When teachers see and understand that the rating scale makes its judgments on differences of training, differences of excellence in teaching and length of experience in teaching, they become aware that such a discrimination must be much fairer and much more advantageous to the better teachers than a salary schedule which regards but one item, namely, number of years elapsed since the teacher began service in the system. Differences of training and of merit in work can be easily ascertained and accurately determined. Differences of salary can be based on such distinctions and will generally be accepted without involving the superintendent in any personal disagreements or controversies with the teachers, especially with the disappointed teachers.

The Rating Scale a Difficult Work.

The construction of a rating scale is the most difficult part of the inauguration of teacher rating. Interest in the general proposition is at this time widely and seriously prevalent. "Let us see the scale and we will be able to judge," is the general thought of the thinking teachers. The superintendent who sets out to construct such a scale will do well to study carefully several of the lists of merits as they are enumerated in scales already in successful use. Of course, any superintendent can prepare a list of excellences of teaching. Of course, also, almost every superintendent values some excellences which other superintendents think negligible. Until there is a standard rate of teaching excellences it is probable that the superintendent and teachers of any system can most easily agree upon excellences which that superintendent and teachers have been stressing most.

Two indispensable virtues of the rating list must be: First, each item or excellence must name a single quality; and, second, the excellences named must be observable and measurable as well by an observer as by the teacher. Because the excellences must be single, the rating list will grow to some length. Many superintendents upon realizing that fact will dismiss the idea because they judge the plan involved, or cumbersome, or perplexing, or provocative of quibbling and perplexity. This is a serious mistake. Simplicity and ease of operation are de-

sirable qualities of a rating scale, but desirable only if the scale secures the end for which it has been contrived, namely, the measuring of the excellences of teaching. Neither simplicity nor ease of use are desirable unless the scale, at the same time that it is easy to use and simple in construction, insures that effectiveness of teaching shall be disclosed and measured. Equally as vital as successful measurement of effectiveness is the possibility which use of a proper scale confers, that desire and hope for yet greater effectiveness be also aroused. When deficiencies are pointed out as reasons for poor rating, directions are also given for efforts to attain a better mark at the next rating period. The best salary schedule ever constructed apart from a rating scale confers no such implied suggestion for improvement. It is this consideration which prepares teachers and disposes them to accept as fair or deserved the judgment that is passed on their work by the operation of a true rating scale. The teacher who is ambitious to improve will infer the right conclusions and will make the necessary effort to improve the weaknesses pointed out by the rating.

Contrariwise, the teacher who finds herself rated "unsatisfactory" is apprised of the fact in terms of a scale which she understands under circumstances which are wholly professional, and in no sense or aspect personal. Separation from the system follows automatically, because pay increase does not follow the mere lapse of time. That such results have not become the sure concomitants of rating scales cannot be a subject of wonder to him who bears in mind

TREASURE.

Frances Wright Turner.

I look them over, my treasures,
Sometimes, when the day is done,
And in the gathering twilight
I love them one, by one.
There's the doll whose face is battered,
And the drum without a head,
And the army of broken soldiers
That once were brave in red.

There's a base-ball glove, that carries
The shape of a boyish hand,
And a box of shells and star-fish
That they gathered on the sand.
There are picture books with corners
All bent, and the pages torn,
And a pair of tiny rubbers
That wee small feet have worn.

A slate, and bits of pencils,
And some school books in a strap,
A fish pole in the corner there,
And a faded, worn out, cap.
Aye, these are my priceless treasures
And all of the wide world's gold,
Could never fill, within my heart,
The place these strange things hold.

that rating scales have stated differences in teaching effectiveness in such terms as "good," "fair," "excellent," and so on. Under such judgments the teachers who were marked "unsatisfactory" but were not told in what the unsatisfactoriness lay, have refused to accept the superintendent's judgment and have quite naturally and rather easily reverted to the primal instinct of self-defense and put the blame on the "partial" superintendent. Had they been confronted in the judgment by a low mark on a known and admitted shortcoming, it would have been easy and natural to accept the rating with the same force and weight that judicial and professional opinions receive. Had all the applications and practices of teacher rating in the past been based on lists of excellences and their opposites, teacher rating would now be a recognized and accepted professional procedure everywhere instead of being held in contempt and derided as it is in many places by superintendents as well as by teachers.

Repetition of Argument Necessary to Acceptance.

To get the importance of this first step fully recognized by superintendents will require many repetitions of the argument. Usually an experience with rating that started with the salary schedule only, has proved unsatisfactory and disillusioning, so there remains the unwarranted conclusion that all experience with salary schedules would be equally unsatisfactory. As already stated, much opposition to teacher rating has had its origin in one such unhappy result. Careful study, critical analysis, broad comparative investigation of systems already in successful operation are needed to construct a rating scale that shall be practicable and produce satisfaction in operation. It takes time, and time is precisely the commodity of which superintendents say they have too little. With the subject being given a prominent place on the program of every gathering of school men, superintendents feel the importance of the subject and the need to get into line. Hence search is made for a system of rating which shall be easy to learn and require little time to operate. The writer earnestly warns every inexperienced superintendent not to put his trust in a scheme which has only simplicity and ease of operation in its favor. One superintendent among his friends adopted such a simple and easy rating scale. At the end of the first year there were murmurs and mutterings. At the end of the second year there was actual objection, resentment, and refusal to abide by the superintendent's judgments. Peace was made by restoring conditions as they had been before the use of the rating scale. In that system neither teachers nor superintendent believe teacher rating possible. As a matter of fact, teacher rating by an approximately exact list of excellences was not on trial. It was a salary schedule based on a scale that tried to distinguish between failure, satisfactory, excellent, or superior service without telling why these terms were used. The teachers felt, and said, that three or four years of experience in a system are not in themselves proof that the system is getting more effective service from them. Measurement of the product must confirm each such pre-supposition. As no such measurement was applied, the hard-working teacher received no more increase than the teachers who did just enough to be kept on. Hence the teachers, who usually have a more intimate acquaintance with the facts than the superintendent supposes them to have, conclude that the salary schedule was a failure, because it paid increased salaries whether effectiveness had increased or not. Only experience with a system which will accomplish the real purpose can ever disabuse their minds. They are not even willing to admit that a rating list and salary schedule might be so constructed as to produce satisfaction by achieving its ideal purpose.

Incorporating the Rating List into the Scheme.

After the rating list has been constructed, its terms must be made clear to the teachers so that marking on the excellences shall confer the proper lessons to the teachers, that is, so that the time of both teacher and superintendent can be saved by reducing the necessity for conferences between them. Supervision is made effective through supervisory visits. Following the superintendent's visits of the teacher at work in her schoolroom, the teacher is apprised of the good features of her work, is told how to improve the improvable features, and is advised to discontinue the bad features. The operations of teaching and learning constitute the school's major work, hence the supervision regards these processes. It observes what is occurring in these fields; commends what is good, asks for the discontinuance of the professionally

(Continued on Page 147)

The School Library as an Architectural Problem¹

Part I—The Housing of the Elementary School Library in a Remodeled Classroom

C. C. Certain and G. W. Styles, Detroit, Mich.

The problem of housing the elementary school library adequately in a new building will be discussed in detail in a future article.

Only a few school systems are concerned with the problem of placing the library in new buildings, but practically all are concerned with the problem of remodeling a classroom in an old building to adapt it to the needs of the elementary school library.

It is the purpose of this article to give as complete information as possible concerning this latter aspect of the problem. To begin with, the advice of a competent architect should be sought before any work is started on reconstruction. But before an architect is consulted it is necessary to determine very definitely the type of library desired. This article will be of no interest to the person who desires merely to have a few books in the regular classroom presided over by one of the teachers who is perhaps relieved of one or two classes in order to give her time to serve at odd moments other members of the school staff or children who may occasionally desire books other than the text-books.

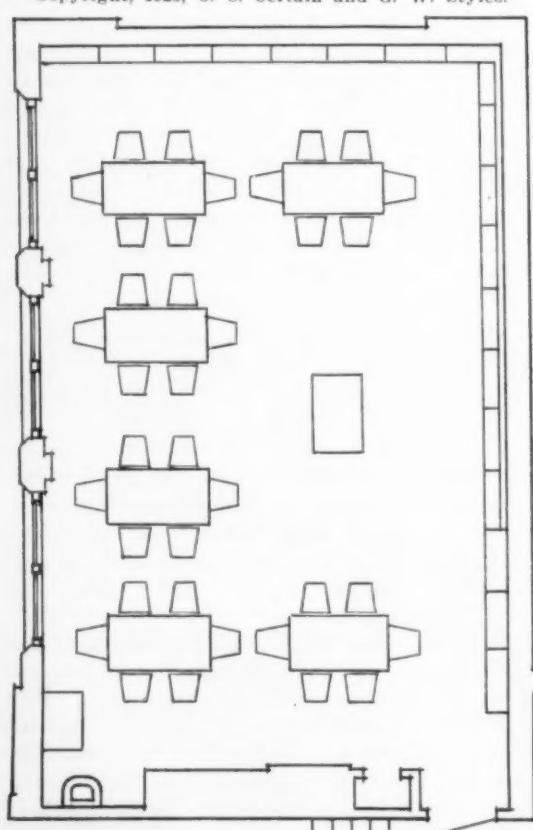
Reasons for Remodeling.

I. The remodeling of the room for library use, it would seem, is justified under the following conditions:

I. A full time librarian or teacher-librarian is employed to administer the library in the room provided. This teacher-librarian should possess these qualifications:

- (a) Teachers' college, four year course, or its equivalent.
- (b) Two year normal course, with state life certificate.
- (c) Teaching experience.

¹Copyright, 1923, C. C. Certain and G. W. Styles.



1. TYPICAL LIBRARY LAYOUT (GREENFIELD PARK ELEMENTARY SCHOOL, DETROIT, MICH.).

This room measures 23' by 36' and contains the following equipment: A teacher's desk, a teacher's chair, a catalog case, a charging tray and guides, and
4—34" x 60" Tables, 26" high.
2—34" x 60" Tables, 30" high.
24—Chairs, 15" high.
12—Chairs, 18" high.

(d) Public library experience, including work with children.

(e) A library-school certificate.

A grouping on the basis of minimum requirements ranked as follows shall be acceptable: a-c-d, b-c-d, b-d-e.

A university degree is highly desirable in any of these groupings.

B. A carefully planned room is justified further if the following needs are to be satisfied:

a. Recreational reading periods.

By children silently.

By children or teacher aloud.

b. Class discussion of books and magazines read by individual children.

(1) To stimulate wider reading in the group.

(2) To give opportunity for natural practice of oral expression.

c. Class instruction in use of library organization and material.

d. Class activity in searching for material on projects.

e. Circulation of books once a week.

C. The purpose of the library is solely to afford a reading room and a center for library activities in the school.

a. The library reading room is reserved exclusively for library use and shall not be used for meetings that in any way interfere with the children's using the library.

b. The library is essentially a reading room and shall not be converted into a study hall or a place of supervised study.

The Service of the Library.

II. In renovating a classroom for library purposes, it is assumed:

A. That the school library should serve as an integral part of the daily life of the school.

B. That the library should provide instruction relating directly to the use of books and to the public library, as a part of the required curriculum.

C. That the library should be equipped with a collection of books not so wide in range as that of the public library, but including books of the same approved quality and standard as those kept by the public library.

D. That the school library is not to be open to the general public except when such provisions, special schedule, special rooms, and special equipment, have been provided as will prevent interference with the purpose of the school library, that is, satisfactory service to the pupils and teachers.

Conditions Met in Remodeling.

III. The following conditions usually confront the person interested in the problem of remodeling a classroom for use of the elementary school library:

A. The simplest undertaking would be to change an ordinary classroom into a library reading room merely by removing the desks, removing unnecessary classroom fixtures, and adding portable sectional shelving where there is wall space.

B. A more complicated procedure and the one usually to be followed is that of remodeling the room.

This will include:

a. the service of an architect as described on page 000,

b. installing portable sectional shelving or building shelving,

c. arranging for cork, bulletin boards, removing blackboards, providing built-in storage covers,

d. constructing a work-room for the librarian. (If this room has an outside window there should be running water.) See local building code in the department of building in the city hall or other municipal offices.

C. The arrangement of the school organization must be changed to allow space for the library. Regardless of whether or not an extreme reorganization is undertaken these items must be determined:

a. The capacity of the library required in relation to the size of the building,

b. The number of pupils to attend the library at each library session in relation to the total school enrollment,

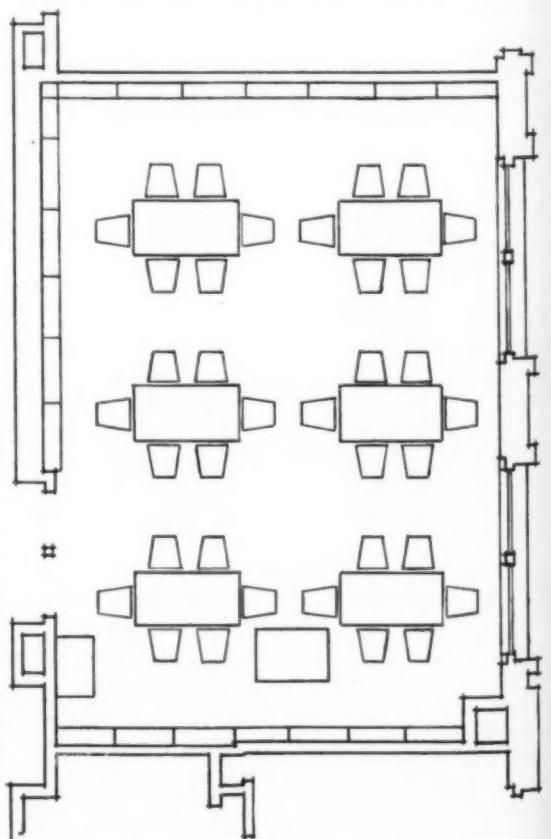
c. The book capacity of the library in terms of the number of books per linear foot of shelving.

The entire question of the schedule of classes and the curriculum must be given consideration. If free time is to be provided, the schedule must be adjusted accordingly; or if regular instruction is to be given in the use of books and libraries periods must be provided.

The foregoing information should make it conclusive whether or not one or two classrooms will be required.

The Architect's Service in Remodeling.

IV. One of the first questions to put before the architect is that relating to partitions and walls. He must determine whether these are partitions which may be removed without injury to the structure, or whether they are carrying walls which if removed would necessitate the building in of girders to support the load carried by these walls. To move a carrying



TYPICAL LIBRARY LAYOUT, MARCY ELEMENTARY SCHOOL.

This room measures 22'-6" by 32'-6" and contains a teacher's desk, a teacher's chair, a catalog case, a charging tray and guides, and

4—34" x 60" Tables, 26" high.

2—34" x 60" Tables, 30" high.

24—Chairs, 15" high.

12—Chairs, 18" high.

wall, needless to say, is an expensive undertaking and before this is done other arrangements should be found if possible. Another location of the library elsewhere in the building might be satisfactory; or a large archway might be built through the wall.

Before any plans are made to cut through walls, the architect should be asked to investigate thoroughly and to determine the location of vents in walls in order that the heating and ventilating system may not be disturbed. Old plans of the building should be made accessible to the architect.

Consultation with the architect should include advice upon all changes contemplated, such as those involving the plumbing, the enlargement of windows, questions concerning the placement of lighting fixtures, whether or not old fixtures may remain, or whether new ones will be required.

Details of the Library Room.

V. The following suggestions will be found helpful in solving problems relating to the housing of the library:

A. Location.

(a) A central location on the second floor is usually found most satisfactory for the reading room. (b) Unless there is a possibility of having skylights, the width of the room shall not be so great as to lose the efficiency of window light. It should not be over $2\frac{1}{4}$ times the distance from floor to the window head.

B. Seating Capacity.

(a) The reading room shall be provided with facilities to accommodate at one full period a class of from forty to fifty children.

(b) There shall be an alcove or ante-room adjoining the reading room to accommodate two or three tables for children interested in individual reading.

(c) Whether or not there is an ante-room adjoining the reading room floor space should be ample for complete accommodations. As a rule from sixteen to twenty-two square feet per reader at any given period will be found to be adequate floor space for all necessary accommodations.

C. Lighting.

The size and the placement of windows in the room must secure adequate lighting. The proper orientation is necessary. If the room was previously constructed in accordance with state or city building codes it may have the proper orientation, otherwise it may be necessary to enlarge the windows. Other considerations concerning the lighting are:

(a) Artificial.

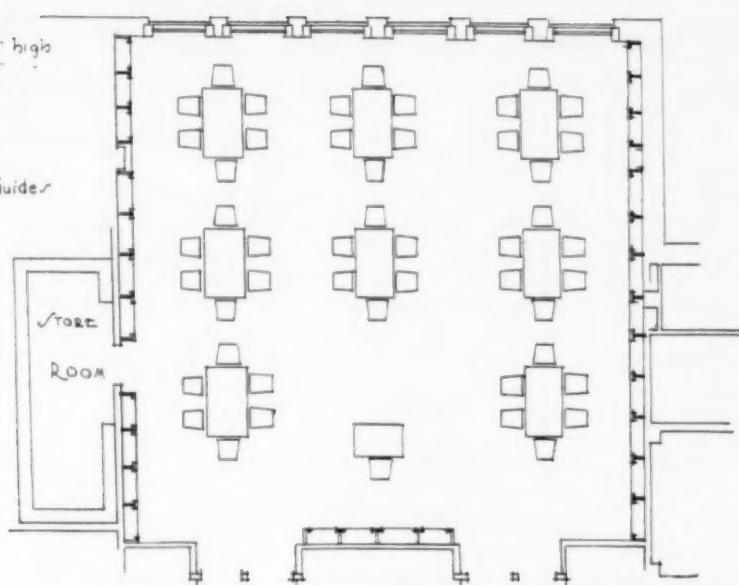
(1) The artificial lighting should be by means of ceiling fixtures of either the indirect or semi-indirect type. (2) There should be no table lights.

(b) Natural.

(1) The glass area of the windows should be

EQUIPMENT

6 - 3'x5' Tables	26" high
2 - 3'x5'	30"
36 - Chairs	15" high
12 - "	18"
1 - Teacher's Desk	
1 - " Chair	
1 - Catalog Case	
1 - Charging Tray & Guides	



LIBRARY LAYOUT, BURTON SCHOOL EQUIPMENT DEPARTMENT, DETROIT, MICH.
(Room measures 37'-6" by 38'-9".)

equal to twenty per cent of the floor area (one match the furniture should be re-finished so as to harmonize with the furniture, or else the furniture should be finished in a color to harmonize with the finishes of the room, as in the case of mahogany or cherry. Furniture may, at slightly extra cost, be secured to match mahogany, cherry, golden oak, or other stains.

(2) Steel casement sash is advisable to insure that a maximum amount of glass area is obtained with given wall opening.

D. Floor.

(a) The floor should be covered with cork or linoleum carpet to deaden sound. If a solid color is varied from, a plain material, in grey, green, or brown, with a simple border, is preferable to any pattern.

(b) The color of floor covering should harmonize with the finish of the room.

(c) In many instances it will be necessary to surface old flooring, or else tables and chairs will be unsightly. The old flooring may be sanded down or re-surfaced. If the planks are badly worn new flooring should be laid over the old floors.

E. Wall Space.

(a) Finishes.

(1) Ceiling, color, ivory white. (2) Upper wall, lichen gray, or light buff. (3) Wainscoting, or lower wall, color, light buff, stone, or pale yellow.

(b) Woodwork.

(1) Dark colors should be avoided in woodwork, trim, and furnishings. Oak is splendidly finished with fumed oak acid stain, filled with gray filler consisting of white lead paint, with addition of lamp black to tone to the proper color of gray. Birch and golden oak are also excellent finishes. (2) Furniture should if possible harmonize with wall finishing tone and match the woodwork. All golden oak is very satisfactory.

(c)

(1) Old woodwork, unless of a color to

harmonize with the furniture, or else the furniture should be finished in a color to harmonize with the finishes of the room, as in the case of mahogany or cherry. Furniture may, at slightly extra cost, be secured to match mahogany, cherry, golden oak, or other stains.

(2) All possible surface downward from a point of six feet above the floor should be utilized for shelving.

(3) Wood paneled wainscoting extending 8' 0" to 8' 6" above floor is recommended on wall surfaces not having shelving.

(4) In the wall back of the bulletin a suitable baseboard should be incorporated in panel design.

F. Shelving.

There may be some question as to the desirability of building in the shelving, or of securing shelving of standard design from such makers as the Library Bureau.

Certainly the standard design should be followed, and built-in shelving should not be constructed unless an experienced cabinet-maker can be secured and a saving proven. In any case the shelving must not be in units exceeding three feet in length, and must be substantially constructed. It may be designed plainly or decorated to any degree that the amount of money available permits. Shelving not substantially designed is likely to prove disappointing, since it may warp, tip, or pull out when books are removed. The following specifications will be suggestive to any experienced cabinet-maker.

(a) The shelving should be built into the walls of the reading room, and of the alcoves or ante-rooms, if practicable.

(b) The top shelf should be not more than six feet from the floor. The bottom shelf should be at least nine inches above the floor with a four inch baseboard of slate or wood. Alternate space between the lowest shelf and the next above should be made into cupboards with solid doors.

(c) Shelving should be adjustable. The normal arrangement of shelves should be ten inches apart.

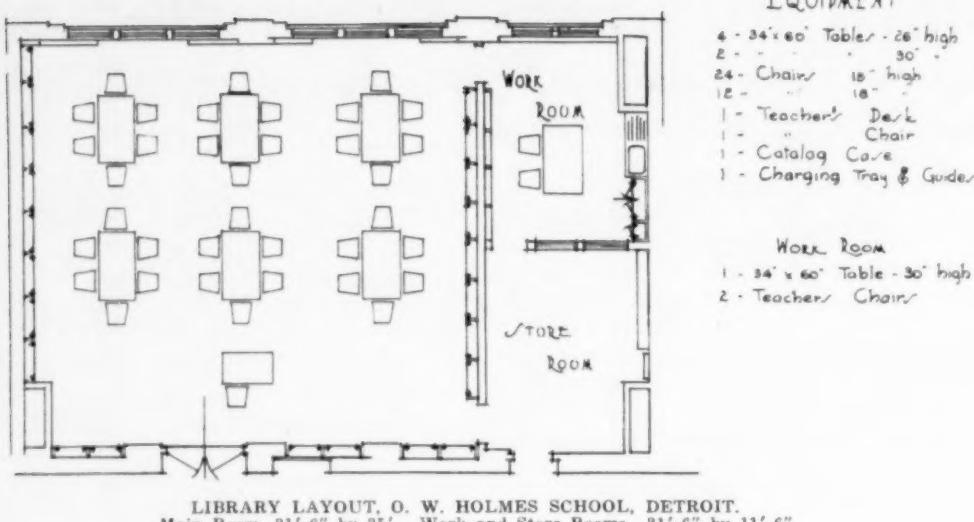
(d) In estimating the capacity of shelving, eight books to the running foot may be used as a basis.

(e) There should be shelving enough to provide not only for an adequate collection of books when the library is first organized, and for the probable additions for the next five years should be planned for. The minimum capacity should provide for one book for each child and teacher belonging to the school.

EQUIPMENT	
5 - 3'x5' Tables	26" high
4 - 3'x5'	30"
36 - Chairs	15" high
12 - "	18"
1 - Teacher's Desk	
1 - " Chair	
1 - Catalog Case	
1 - Magazine Rack	
1 - Charging Tray & Guides	

SCALE: 1' = 1'-0"

TYPICAL LIBRARY LAYOUT, SMALL ELEMENTARY SCHOOL TYPE.
(This room measures 29' by 51').



(f) One section of shelving 12" deep and a magazine rack may be set back to back and should stand free in the room. One section of 12" shelving and a newspaper rack should be set similarly.

(g) Built-in Furniture.

(1) There should be two three-foot sections of shelves, 12" deep, to take folio books and magazines such as the Scientific American. These sections of shelving should be located as near as possible to the front center of the room.

(2) If the book capacity permits, a magazine rack should be substituted for two sections of shelving.

(3) It is important that this rack or a similar one be so designed as to provide adequately for picture books for the little children.

G. Bulletin Boards.

The wainscoting on each side of the entrance should be made of cork from a point 3' to 3' 6" above the floor of a design in character with the paneling, to serve as bulletin boards for announcements, etc.

H. Closets.

Ample provision shall be made for closet space for storing back numbers of magazines, new books, books for binder, stores of supplies, etc.; unless this storage space is provided in connection with the librarian's workroom.

I. Workroom.

(a) Shelving should be provided as in the library reading room, the space below the bottom shelf to be utilized for built-in cupboards. It is desirable that cabinet space 12" deep, for

storage purposes, be substituted for one or two sections of shelving.

(b) There should be running water, a sink and drainboard.

J. Furniture.

(a) Tables three by five feet and seating six persons are the standard size recommended. Two-thirds of these should be 26" high, one-third of them should be 24" high.

(b) The width of the room should be ample to accommodate from two to three rows of tables placed with sides parallel to the short walls of the room, if the room is rectangular in form.

(c) The rows of tables should be so placed that the fewest possible readers have to face the windows.

(d) A space of five feet should be allowed between the rows of tables and adjacent walls.

(e) Two rows of tables should be provided in small elementary schools and three rows in large schools.

VI. Additional Suggestions.

The room may be made more attractive by using curtains on windows instead of window shades or by using both curtains and shades. Ordinary draw curtains made of repp in suitable colors are very attractive. The color chosen may be left to the artistic taste of the supervisor, the principal, the teachers, and the decorator. Ferns and plants will brighten up the room. Avoid tall palms and hotel lobby effects. It will be necessary to construct pads upon which to place the plants set upon the window sills.

Progress in City School Administration

Recent Observations by an Authority of National Standing.

"Measured in terms of accepted and well-tested theories, there has been gradual improvement in city school administration, especially in certain phases, such as improved school laws and the application of business principles and scientific management to educational problems."

This is the opinion expressed by Dr. W. S. Deffenbaugh, chief of city schools division of the United States bureau of education. He points out that boards of education have been reduced from their former cumbersome size, that ward representation is practically obsolete, that fiscal independence has come into greater recognition, and that standing committees are being abolished.

He also contends that the true function of the superintendent is being clarified and that his relations to the board of education and the school system are being defined with greater

exactness, and that school buildings are being adapted to the program of studies rather than to mere fancy for show structures.

School Board Elections at Large.

The newer methods employed in creating school boards are dealt with by Dr. Deffenbaugh as follows:

"An equal or even greater improvement in the administration of city schools has been the substitution of election at large for election by wards. In 1902, 25 of 57 cities elected or appointed board members by wards or districts. Now there are among these same 57 cities only 9 in which this method obtains.

"Election at large has usually resulted in the improvement of the schools because of the elimination of petty ward politics. In cities where boards are elected by wards, they have been known to nominate teachers for their respective districts, each member by 'senatorial'

courtesy' being accorded the final word in the management of his ward.

"It has been found that a better class of men are elected at large, that the board members are more inclined to pull together in the interests of the whole city, and that there is less 'log rolling.' So rapidly have cities substituted the election of boards of education at large for election by wards that it is safe to predict that within the next few years election by appointment at large will be universal."

Independence from Municipal Authorities.

There has been much effort during the past year in the states of New York, Massachusetts and Texas to divorce the school system from city council domination. On the subject of financial and administrative independence for boards of education the expert says:

"City school administration has attained such importance, and the schools have so expanded their activities that a board of education directly responsible to the people is required. It is the general opinion of students of school administration that city school boards should be entirely independent of the city officials, since education is a state and not a municipal function, and since experience has proved that an adequate city school system can be developed best by a school board not dependent upon city officials for school funds.

"In practice the tendency has been to divorce school and city finances. Since 1902 the city council has lost ground in having authority to pass upon the estimates of the school board, this plan having been abandoned in 11 of 52 cities reporting in 1902. In 5 of the 11 cities the school board now makes up its budget without having to submit it to any other body for revision or approval; in 3 a board of estimate passes on the school budget; in 2, the mayor; and in 1 the superintendent.

Standing Committees Being Abolished.

"Though the size of school boards has been reduced by legal enactment one of the evils of the large board remains in many cities, namely, a large number of standing committees. These hang on a sort of vermiform appendix with no useful function and often cause internal trouble. In not a few cities there are as many standing committees as there are board members, it not being uncommon for each member to hold a chairmanship, which is about the only excuse for the existence of many of the committees, since there is nothing in particular for them to do, or else they take upon themselves duties that belong to the professional experts employed by the school board.

"Whenever items of business are parceled out to different committees, there is usually little discussion by the entire board, some members being entirely ignorant of what the others are doing. If the board acts as a whole, responsibility is placed on each member and not on an elusive committee; all business, not part of it, is covered by the entire board and all members must be intimately familiar with all the business, finance, buildings, etc.; this arrangement insures better correlation and more harmonious expenditures, expedites business, and avoids shifting responsibility. One argument sometimes advanced in favor of committees is that they can meet and go over the work assigned them without having it discussed openly in board meeting. This argument that a school business should be transacted through committees so as not to attract the attention of the public is not valid in a democracy.

Superintendent the Executive Officer.

"Notwithstanding the fact that many school boards legislate according to the recommendation of their various committees and sometimes

(Conclude on Page 148)

Educational Engineering

Teacher Placement as a Science

D. H. Cook, Philadelphia, Pa.

The writer is encouraged that there is a sentiment abroad among the leading school men in favor of scientific placement. From hundreds of friendly letters, which commented seriously on the "Educational Engineering" articles,¹ it is evident that school are recognizing the claims of placement. These letters reflect a keen wish to understand how selection may be benefited by practical ways and means. To this end we reenter the discussion.

The teacher is the corner-stone of every school in America. Someone chose the teacher in every instance. Likewise, every teacher was elected. Some were selected from lists of several; others were drafted; many were recruited from other fields. Politics voted in its share. Friendship elected thousands. Candidates were defeated. Appointments were better or worse. Communities were split and united again by the teacher of the American public school. This is a familiar story of the process and effect of amateur placement which is the only kind that many school boards remember or know about.

Now, far more than ever before, the timber, brains and ideals of the teacher are the most valuable items in our public assets—yet few of us take inventory of this account as related to the development of engineering from then till now. No longer are cabins planned and built by a handy-man. We have architects, engineers, contractors, artisans and workmen who build skyscrapers, steel plants and cities where the cabins stood. Can it be that there has not developed a corresponding efficiency in educational engineering? Has science failed to function in this field? Is it not reasonable to expect better methods in the choice and arrangement of materials for our educational plants in harmony with our efficiency in commercial lines?

Testimonials and References.

Testimonials and references are unsafe evidence of the teacher's ability. As proof of this we need only to refer to the lessons of history. The Martyrs could not have secured suitable references from the people of certain periods of their lives and generally from none whatsoever. Christ, the Great Teacher, had none to bear His testimony, except perhaps His Disciples who were his students.

Is it any wonder, then, that the evaluation of the credentials of any class, including teachers, is a technical and scientific procedure?

Reputation contributes something to the measure of a teacher's worth. It is only a report which may or may not be true. It is an indication which must be evaluated before it has any bearing either for or against. In the machinery of placement, references seem to be an essential means and not an end. They are the customs of procedure. Some schoolmen always write favorably about everybody. Such references seem to be flattered by the requests. Others seldom or never speak well of any teacher, especially if she has been in their employ. What a witness says in court is not always taken for face value. The counsel and judge examine the witness. Other and better evidence often causes the testimony to be thrown out as false or incompetent. Testimonials are relative, not absolute or final. One employer or superintendent may say, "very poor," another, "very good," a third, "average," a fourth, "good in discipline, poor in attitude." A case of this kind needs a friend at the bar who

will call all the witnesses to state the full facts, to learn whether they were opposed to the schools or to the superintendent or to a faction or were seeing things through "blue goggles" or "rosy lenses." All factors must be measured, community, superintendent, faculty, school, board, teacher, parties or cliques, whether friendly or opposing everything or anything. These are the fundamentals. When references given (they are naturally friendly to the teacher) testify in terms that seem diametrically opposed, it must be that the resultant is a compromise that may be high or low as the facts and conditions are seen and determined through the eyes of a third party.

Some school boards vote fine letters to teachers when leaving, reserving reverse criticism for private correspondence or conversation. Some superintendents and even college professors give their teachers or students splendid commendations, only to reverse such opinions when pressed for the truth. Many a college professor is noted for one hundred per cent testimonials which are made valueless by an "if" or a "but" appendix. One of the busiest and most efficient departments of any well-equipped placement office is its reference clinic. Here papers as above indicated are carefully diagnosed and in a critical case counsel is called and the wise professor who wrote the reference advises, after serious thought, that in order to save the life of the patient, the appendix must be removed. The uncertainty of college-made testimonials, whether they be of general kind and nearly all alike, or purely personal and over-honest, are sufficient reasons for censorship and investigation of written testimonials from the college sources. Jealousy among departments in colleges adds to the importance of this need of investigation. The best part of some testimonials is what is said between the lines. Evaluation, therefore, demands that placement officials must consider well the points of credit or demerit and must bring to the test a sense of the knowledge of human nature in its broadest meaning.

Evaluation of Diplomas and Certificates.

Scientific evaluation must weigh the importance of teacher's course, credentials, diplomas, certificates, and also be familiar with the courses and needs of schools, colleges and universities, as well as state systems. These vary in their standards and requirements almost as night differs from day. Four year high school courses

are generally recognized as prerequisites to teacher-training, even though these courses differ in character and content. Until recently, several states admitted students to normal training who had to their credit only one, two or three years of high school work. Some states admitted teachers from the grammar schools. Many of the most successful teachers in states like Pennsylvania, Delaware, Dakotas, etc., were licensed by state or county authorities to teach without having any preparation beyond the grades. The best of these have taken summer and extension courses during their period of teaching. Teachers duly licensed in some states are not permitted to enter neighboring states on a basis of reciprocity, even though such teachers have been very successful in the states where they were licensed. New Jersey does not recognize the validity of four year high school and two year normal training even, if the normal courses were secured in certain states. States have plans and regulations for reciprocity which, as a rule, must be certified by the schools where the training was received. Without this proof reciprocity fails, even though the teacher has been a success.

The proper study of teachers' credentials and courses reaches farther back than the state regulations. The worth of the teacher's certificate depends upon the courses taken and the strength of her preparatory program. The uneven opportunities in teacher-making are the reasons for fifty-seven varieties of certificates which may be presented for recognition for a single vacancy in Cleveland, Ohio, or Charleston, W. Va. It must be considered that there are thousands of good teachers who have secured these several varieties of certificates and that under state patronage and encouragement each has gone forward and has served schools and communities perfectly well. How to standardize and to protect the worth-while teachers, who are practically self-made but who have nevertheless taken advantage of outside and vacation courses to improve themselves, both in subjects and methods, is the eternal problem of saving useful material from discard when the need of the hour is for more strong teachers. Placement must evaluate, then appoint, so that the teacher will improve herself and be of larger service to society. One must go west to find any reasonable proportion of standardized or uniform certificates—yet in the west, eastern teachers are constantly arriving who should be adjusted into the western systems.

Passing judgment upon the worth of diplomas and certificates would not be so difficult, if placement were not compelled to take into account the larger fact that the schools which were and still are recognized as of teacher-training rank are good, bad and indifferent. Not only must placement evaluate the methods secured in normals or training classes, and pedagogy that was not worth the name, and Theory and Practice which was ninety-nine per cent theory, but it must give credit to experience and subsequent study and collateral preparation that is worth recognition. Accordingly, evaluating and rating must figure with that which has been and is and should be in the courses pursued, in preparation, in teacher-training, and in certificate getting. The majority of teachers who have served twenty years have not inherited the advantages of the modern educational courses. The science of teaching is so



nearly new that we are not ready to determine the education of a teacher on strict diploma or credential basis. No doubt, if fifty per cent of the training schools of our present day colleges were to submit their professors or department heads and teachers to the scientific tests that are generally recognized as the best for evaluating training ability, a large percentage of the faculties now training teachers would fail. There is no twelve-inch rule for accurate measurement in preparation, certification, and rating of teachers who have been and are being prepared in our American school plan. State systems are supreme and no Federal evaluation that is worth while is yet operative.

To fit the graduate of a private or technical school or college or a teacher prepared in the recognized normals or colleges is more a matter of selection of personality than of evaluating certificates. To adjust legally and otherwise a graduate of a technical, special or private institution into a public school appointment is difficult—yet state regulations quite generally make it easy for such teachers to secure appointments under special dispensation. Cases of this kind are numerous, especially in commercial, home economics, physical training and art subjects. Supply and demand have much to do with this exception to the general rule of eligibility for public school positions. Some states are granting such teachers six months to a year in which the teachers chosen may qualify by examination or by extension or summer courses that cover the required professional training. Few states are offering examinations, but are substituting extension and summer courses. This is particularly true relative to the Smith-Hughes plans for certification.

Rating Teachers.

Rating teachers in service is growing rapidly. Placement and educational departments have joined in this investigation of experience-rating. Among the best of recent research efforts is that announced from Ohio State University under the direction of Dr. B. R. Buckingham. The conclusion seems to be that rating among the average and larger school systems is practiced to various ends. The study named gives the effect of rating on promotion, salary, transfer and termination of service. One of the important deductions is that there is a "clear tendency on the part of the larger cities to put less reliance upon their ratings of teachers when deciding questions of promotion, salary or termination of service." Evidently the reason for this tendency is the result of the fixed salary schedules and permanent regulations of such cities. Another declaration from this study of a large number of small and large cities is that superintendents believe that teachers should be rated, but all are not rating their teachers, that rating should be made by more than one official and that a rapidly growing tendency is that outside rating officials should be called into such service.

The placement executive is a better teacher-rating officer than is instructor, supervisor, superintendent or employer, providing he investigates the teacher and her work and consults the opinions of her instructors, co-workers, supervisors and employers. This is a step toward scientific evaluation which placement is contributing. Placement executives are visiting schools and candidates more and more, which indicates service in its practical form. There is virtue in observing the work of any teacher. This can be done by her supervisor or principal and the results recorded for local, state or placement use. The important item in placement is the personal interview in the presence of the placement officer and employer, accompanied by the facts of her record. The slogan of the advertising world holds good in

placement: "One look is worth a thousand words." Only a specialist in personnel should engage in teacher-placement. Everybody is not able to pass judgment on another. Mechanically the best contribution to placement is a newly-found efficiency in rating records, references, personal interview and visits of the executive officer to schools and colleges.

If it be true that rating of teachers in service as practiced does not assist in promotion or salary increase, this fact is worthy of serious thought in conjunction with the theme of this paper.

Since an interview is so important in sizing up a teacher, we may ask what points should be covered in the interview and who is the best interviewer. The interviews should be a psychological test and should be made by one who understands balancing the results. In the four centers of applied psychology—Rochester, Pittsburgh, Iowa City, San Francisco—these research departments use four tests generally known as intelligence, aptitude, proficiency, educational. All positive answers are alike—opinions do not enter into the result. In this it differs from an examination. Anyone can give this test. The others must be given by a specialist who is guided by definite principles. Yet these four tests do not cover very important items such as personality, temperament, interest and character. These evaluations are left for the interview or for the unsuspecting correspondence.

Rating of candidate's record (comparative estimate)		
Schools	Positions	Subjects
Junior High	Denver, Colo.	Math. & E.
Junior High	Denver, Colo.	Alg. & E.
Senior High	Plainfield, N. J.	Geom. & T.
Senior High	Plainfield, N. J.	Geom. & T.
Present Estimate—Excellent	+	

Since over fifty per cent of the appointments of teachers are made without interview, it is apparent that some means approaching science should be applied to the choosing of position and candidate. The most useful service of placement is in this field. As a third interested party—interested both in the welfare of the teacher and in the success of the position—is the logical agent to determine such appointments, it remains only for educational engineers to take heed of all the best ways and means of Human Engineering whether in trades or education, in guidance or placement. Agencies or bureaus, public or private, must install records and systems, visible and mechanical, which are the best in use in personnel departments of large concerns, also those of most recent use in the research educational field. These records and systems must be manned by executives who know human and educational values and can measure the results with dispatch and accuracy. The keenest and best experienced minds will find full opportunity in placement service to use every spark and atom of genius and learning in directing teacher-placement as it should be done.

Various scales and devices for measuring teachers at work have been reviewed during the preparation of this paper. Many of these are



technical and filled with details of mathematical units. If time and opportunity are allowed for rating, all such measurements may be helpful. We find three practical plans of rating the teacher at work now used by Superintendent Charles A. Wagner, Chester, Pa.; Superintendent H. Claude Hardy, Fairport, N. Y., and Superintendent R. C. Clark², Seymour, Conn. These and others seem to give from fifty to sixty per cent credit for points that are not included in the teacher's diploma or certificate. We conclude, therefore, that the personal items listed as character, personality, and industry are to be determined outside of the certificates of eligibility. This, then, brings to the front the science of selection and placement in practice as well as in theory.

Placement must use as many as possible of these means of research in its plan of candidate-rating. Points in such a personal survey must be recorded accurately in uniform terms and the same scale must apply to all who are rated. Competent placement agents are using this means of rating more and more. On the enrollment blanks in one placement office we find in use the following rating plan which generalizes and rates the ratings after all the evidence is in. The opinion of the executive, therefore, is recorded on the teachers' enrollment blanks, and is open and free for the use of employers.

Rating Personalities.

Experience is a large factor and perhaps the most important one of all the items that enter

(Leave Following Blank. For Agency's Use Only.)			
Dates	Salaries	Recommendations	
cl. 1919	\$150	Good	
on. 1920	\$175	Excellent	
rig. 1921	\$210	Excellent	
rig. 1922	\$225	Superior	

into the teacher-rating question. A school that is small and of low ideals, that has nothing of hope or environment to encourage either teacher or pupils, is not a proper test of the teacher's strength. It may be, it is true. Neither is the large and difficult school with its good equipment and high ideals a final test of a teacher's service. Environment plays its part and human qualities are not determined by any one test. There must be a basis of comparison between like duties performed, between communities, courses, pupils, before one teacher is said to be good and another fair or bad. Rating, therefore, on courses, examinations, certificates, experience, is not the final, fair means of measurement.

Perhaps the greatest of sciences has to do with rating of personalities. We call it character analysis. It holds that each thought and act of the individual is recorded in the body. Features and characteristics are written stories for translation by those who know how to read. The average superintendent will say of the candidate, "I can tell in a second when I see her whether she is my kind." Recorded in her personality are success or failure, strength or weakness. Laws of the character reach back to a wealth or barrenness of gifts of the family and race. Placement and rating would do well to study the works of Dr. Katherine Blackford and her accomplishments in rating and analysis, as well as her applied science of placement in industry and business. Her plans and records are accepted and used by many of the leading industrial and commercial concerns. Placement should consider her instruction and value her advice. The blanks of application which the leading schools are submitting to their applicants have listed in the questionnaires points of personality that seem at first to be foreign to teaching qualifications. Color of the eyes and hair were not considered in former days. Now such questions are asked and their answers have

weight. Pigmentation, texture, size, convex or concave profile, voice, gesture, inflection, and fourteen essential points of characteristics are the content of this applied science. Outward appearance is the textbook of inward traits. Let us read its pages.

Measuring Loyalty.

Every year hundreds and thousands of contracts are given to teachers who soon become educational bolsheviks or militarists, and by direct or indirect methods take pride in leading the smoldering opposition into open or subtle revolt against the superintendent's, principal's or board's policies. These cases remind one of the German invasion or of the Benedict Arnolds of our own history. The sizing up of the teacher's attitude is an important essential and to do it well savors of genius. Teaching is more than a question of efficiency. Germany was efficient and so was Benedict Arnold. Loyalty to system and to the spirit of the contract is the first point in rating a teacher's value. Often, if not generally, this characteristic is best observed and rated by a third party who knows how to judge human traits and qualities. Here, again, placement claims for itself a vital advantage in its public service.

Educational Guidance.

The science of teacher-placement must consider all of the factors of the preparation and personal fitness of the candidates served. Placing the right teacher into the right position is the aim and the end of placement. Formerly, when it was thought to be an easy pastime for anyone to attempt, it was likened to the game of chess—a movement of men from place to place as "pawns on the board." Since vocational-guidance is recognized as a scientific educational process, by the same token teacher-placement-guidance is educationally scientific. As carried on in our public schools, vocational-guidance is largely prevocational or relatively vocational, while teacher-placement-guidance is the highest type of pure vocational-guidance, the former being dynamic, the latter static. The thought of placement necessarily dominates the purpose and aim of guidance. All teacher-training merges in teacher-placement. Human mental and spiritual conditions and growth must be reckoned with in the evaluation of the qualities of useful men. The tendency among the best departments of education in our best universities is to broaden the meaning and application of vocational-guidance and to term



BYRUN W. HARTLEY,
Superintendent of Schools-Elect,
Louisville, Ky.

Mr. Hartley is one of the youngest, if not the youngest superintendent of schools in a city of more than 100,000 population. He was born in New Albany, Ind., 32 years ago, and received his education in the New Albany High School, the University of Chicago, and Columbia University. He holds the bachelor's and master's degrees.

Mr. Hartley has been an instructor at Wentworth Military Academy and at the New Albany high school. For a time he was supervising principal of elementary schools in his native city, and during the past five years he has been assistant superintendent of schools of Louisville. He is director of summer sessions of the University of Louisville and of the Louisville Normal School.

it "educational-guidance." This is a step toward the recognition of guidance in all forms and phases which includes placement. This is a logical, forward movement which recognizes that teaching is a vocation not unlike any other trade or useful occupation.

Specifications.

If a contractor were to receive an order to build a six-story building without any accompanying specifications from the architect, what sort of a building might we expect as a result of the order? Placement offices receive many calls for teachers that are of this sort. A superintendent sends a request: "Send me a teacher for high school, a good one." The placement office asks, "What will you pay? What are the subjects taught?" Answer, "I want a good teacher and will pay what she is worth. I can arrange the subjects." This is a familiar call. Its indefiniteness makes it worthless. Only one

of the fourteen general specifications is named—"a good teacher." Of course, we understand that the employer reserves the right of choice and accordingly does not exactly know how to state his specifications. He knows what he wants, but he does not know how to name the points that guide him in his selection of candidates. It is fair to declare that any well equipped teachers' agency or bureau is able to help in the selection of "a good teacher," if the other conditions are named. Without these conditions quite definitely stated, no placement official can or should attempt to solve such a problem. A full statement of any case will not limit the absolute right of choice which the employer possesses.

Observations.

America is having its educational reformation but has not yet experienced its renaissance. Change follows change and then changes again. Nothing is definitely settled—nothing is crystallized. This is the price of progress in a democracy. This decade is like a century before we Americans began our reforms. Our schools reflect our thoughts, purposes and doings, "as a face is reflected in the water brook."

When it is understood that placement offices have complete records of available and desirable teachers who are rated according to recognized standards, superintendents and boards will deal with placement executives just as investors consult Babson's service or the National City Bank before buying stocks, bonds or realty. Right here is a fair comparison of placement with business service and practice. Babson's charges \$150 annually to its average patron for advice about prospects in investments or holdings, while placement service is free to all investors in teachers' wares. Placement records of candidates are open books to be consulted by any employer, independent of his pledge to buy or not to buy.

Teacher-placement is coming into its own because its methods are becoming scientific and its plan is fair and essentially useful. Whether employers should and will pay for placement service depends entirely upon the efficiency of the teachers' agencies or bureaus. It is logical that this should occur for already banks, stores and industrial concerns are buying service stories, letters, reports and systems as business-builders that are less valuable to them than is the service of placement to schools and colleges.

Supervision in Fayette County, Kentucky

George M. Baker, Superintendent, Formerly Associate Professor of Education,
University of Kentucky.

A serious weakness in rural schools has been the absence of anything one might consistently call continuous, constructive supervision. The old time county superintendent appeared on the scene about once a year, for a brief inspection of some twenty or thirty minutes, and then went on his way rejoicing, his duty, as prescribed by law, fulfilled. The most sanguine of them though could hardly have thought, in his heart of hearts, that he was supervising. To be sure this was prior to the days of Fords and boards of education able to see the wisdom of furnishing a superintendent with a car in order that he might get around his county oftener than the law prescribes. However, it must be admitted that even today there are superintendents in relatively small counties, with the most excellent roads and fairly accessible travelling facilities, who are content to fulfill the letter of the law, namely to make at least one visit each year to each of the schools in his county.

In short, rural teachers have been, and perhaps largely still are, left to their own devices, to sink or swim as their unaided efforts may enable them to do. It is to be said for the rural teachers that they, young and inexperienced for the most part, have succeeded admirably well, and what excellencies the rural schools in general may possess belong wholly and solely to their credit.

However, with roads constantly improving over the country at large, thanks to the automobiles, and with our rural teachers getting younger and younger each year, and moving to larger cities and towns with more attractive and lucrative positions at the earliest opportunity, there is, it seems, an increasing and imperative demand for real constructive supervision in the rural schools.

The writer had been for seven years a university professor, teaching administration and supervision, and on suddenly deciding to avail

himself of the opportunity to take a laboratory course in his field, assumed the arduous duties of a county superintendent. There have been perhaps more than the usual number of stinks and explosions in this laboratory course, but one thing he has determined to do, and so far has not been deflected from, to honestly attempt to practice what for seven years he has preached, namely that a county superintendent might do a better job of supervising than is generally done, if he sets himself seriously about it.

Fayette County is a relatively small county, approximately 269 square miles, in the heart of the far-famed Blue Grass region of Kentucky. Fayette has most excellent roads, the furthest school being but 45 minutes by car from the county court house. The county is also fortunate in having at present a board of education willing to furnish the superintendent not only a living salary, but a car and the main-

tenance of the same. The superintendent realizes of course that his record is made possible by these factors which are lacking in the case of the great majority of counties.

Fayette County has 40 schools, 26 white and 14 colored.

As to size they are divided as follows:

One room schools....22—11 white; 11 colored
Two room schools.... 8— 6 white; 2 colored
Three room schools... 4— 4 white; 0 colored
Four rooms plus.... 6— 5 white; 1 colored

The superintendent has made the following number of visits this year; with the accompanying mileage:

Sept. 87 visits	550 miles
Oct. 81 visits	450 miles
Nov. 104 visits	790 miles
Dec. 110 visits	904 miles
Jan. 96 visits	728 miles
Feb. 66 visits	350 miles (N. E. A. in Cleveland 1 wk.)
Totals	544 visits 3772 miles
Average visits per month: 90-2/3; last year 42.	

Average miles per month: 628.

Average cost of car per month: \$38.91.

The superintendent estimates to date that 75 per cent of his time is spent visiting. These visits are distributed among the 40 schools as follows:

Athens	21	Jonestown c	11
Athens c	13	Kenwick	26
Avon c	7	Kirklevington	14
Beatty	7	Land	11
Bell	16	L. Georgetown c	11
Bethel	15	Locust Grove	19
Bracktown c	15	Loradale	6
Brier Hill	18	Maddoxtown	21
Brighton	9	McDowell	16
Cadentown c	16	Mt. Gilead c	11
Chilesburg	14	Picadome	20
Coletown c	9	Pricetown c	8
E. Hickman	13	Republican	16
Faulconer	13	Rose Hill	12
Ft. Springs	16	Russell Cave	23
Ft. Springs c	14	S. Elkhorn	24
Greendale	14	Uttingertown c	9
Jack's Creek	11	Walnut Hill	14
Jimtown c	9	Warrentown	11
Joe Smith	3	Wolf Run	11

The small letter "c" in the table denotes a colored school. It will be observed that the colored schools have not been slighted. The Joe Smith school is an emergency school, opened late in January, therefore the three visits.

This distribution shows that no school has been visited less than six times during the six months under consideration. The number of visits has not been calculated. Certain conditions and reasons have resulted in more visits to certain schools than to others. The two most distant schools from the court house are Land and Jack's Creek. Each of these has been visited eleven times since September.

The visits have averaged perhaps fifteen minutes each. The superintendent is of the opinion that three 10 minute visits are preferable to one 30 minute visit. The short visit seems to be much in favor with city superintendents, and is sufficient to give an index as to the general atmosphere and physical conditions of the room. A ten minute visit will easily reveal the attitude of the children to the teachers and vice versa. The only thing that the supervisor does not get in so short a visit is the technique of the teacher perhaps. The writer thinks "technique," whatever that may mean, is a vastly over-rated thing. The most significant thing is the general working conditions of the room, and the attitude of the children towards their tasks. The idle child is a danger signal; the busy child a healthy index.

The superintendent aims to give each teacher at least one long visit during the term.

Last written notes were taken on many of the visits. The superintendent used "Wagner's 'Superintendent's Notes of Visits.'" These notes are very excellent devices for frequent

use. Their long continued use would tend toward an undesirable degree of the wooden, and the mechanical. These notes were generally mailed back to the teacher rather than left on her desk, as the latter attracted too much attention it seemed. The writer is of the opinion that the preferable way to get at the matter of his reaction to what he sees in the room is to watch his opportunity to drop a word of criticism or caution, and oftener, a word of praise as chance presents itself. The word of praise should always come first. Human nature is always human nature and pretty much alike in all of us.

There are certain very valuable supplementary agencies in supervision, namely frequent teachers' meetings, preferably in sections, where only topics strictly germane to the teachers present are presented for discussion. The plan has been followed in Fayette of having the primary teachers meet one Saturday, the 7th-8th grade group meet another Saturday, the high school principals meet some weekday afternoon after school; and a general meeting at least once a month. This plan has only one drawback, in that in the one teacher schools it means the teacher is obligated to attend all of the meetings except those for high school teachers. It is almost too much for human nature to tolerate to have to spend every Saturday morning in a teachers' meeting. There should always be an imperative need for calling such a meeting, and the program should be short and snappy. Teachers' meetings can, in spite of the general contention, be made enjoyable.

Another valuable aid is the work of standing committees. We have three such committees, one of primary teachers, one of 7th and 8th grade teachers, and one of high school teachers. These committees are working toward the bringing together of the work of all the teachers in their respective groups, and also toward the ultimate objective of evolving a county course of study, based on the all too meager state course of study as a point of departure.

Again, the attendance officer should be a legally qualified teacher, and one having the confidence of the balance of the teachers, in order that he or she may render a certain amount of very valuable assistance along the general line of supervising. This is generally not found to be the case in most of the counties in Kentucky at present. This point of view is yet purely Utopian.

Last but not least, frequent bulletins and letters from the office are very good supplementary supervisory devices. In this manner much information regarding the local system may be disseminated, all of which will result in a

quickened interest on the part of teachers, pupils, and even patrons. The excellencies of one school or teacher may thus become the common possession of all schools, and the achievements of one the goal of all.

Finally, let us admonish to the effect that the primary business of the supervisor is to inspire rather than to instruct. Most of our teachers need little or no actual instruction. For the most part they have been instructed well-nigh to death. They do, however, not infrequently need inspiration and kindly encouragement. The supervisor who loses sight of this point of view should cease to function. Superintendent John H. Beveridge of Omaha, retiring President of the superintendents' section of the N. E. A. is the type of man we have in mind. The following statement of his proves it: "Teaching is the finest of the fine arts. It deals with the most precious resource—the child. The sculptor moulds clay and carves marble. The product is lifeless. The painter works on canvas. The product is changeless. The teacher touches the life of the child, puts love in his heart, and kindles fire in his soul. What a responsibility! What an opportunity!"

A CHICAGO SCHOOL BOARD PRESIDENTS VIEWS.

When the Chicago board of education was subjected to reorganization by Mayor Dever only a few members of that body were retained. The mayor practically constructed a new board of education. Among the few who were retained was Dr. John D. Robertson, who is regarded as an honorable and capable man, and who at the time of the change served as president of the board. Upon his retirement from the presidency he gave voice to the impressions and conclusions formulated during his incumbency of office. These assume some interest because they come from a man who has been in official touch with a city board of education that can boast of the stormiest career that has ever befallen such a body in the United States.

Subject to Chronic Strife.

"For thirty years I have been a resident of the city of Chicago, and during this time there has been much strife and controversy on and over the boards of education. I am informed that this has been a chronic condition for more than thirty years. Men and women of varying walks of life have served on these boards; superintendents have come and superintendents have gone; still the strife keeps up. From time to time when new boards have been appointed the citizens have looked forward hopefully for peace. There has been no peace. This is true not only of the boards of education of the city of Chicago, but in most of the cities in America.

"I am convinced the school systems have been in large part alike—ships sailing without a compass or a proper log, and many times upon an uncharted sea. Growing municipalities such as Chicago, should have an educational plan, not for four years (the life of the ordinary board), not for eight or twelve years, but a plan should be outlined and projected for a period of at least twenty years, and the plan should be amended from time to time as conditions change.

"This plan should be carefully, deliberately made by the best educational and business brains in this community. After the plan is made it should be submitted to everyone interested in public school education in this community. In other words, it should be 'sold' to the community.

"It should answer the many fundamental questions that boards of education have to grapple with, such as: How shall we provide rooms sufficient so there shall be a proper place for every child? Should our school buildings

(Continued on Page 148)



C. M. MODERWELL,
President, Chicago Board of Education.

Analysis of Cost of a Heating and Ventilating System for a School Building¹

James J. Mahar, Chairman of the Boston Schoolhouse Commission.

During the first fifteen years of its existence the Schoolhouse Commission of the City of Boston compiled and published valuable data on construction costs of its school buildings. During this period, which was one of stable prices of labor and material, it was possible from this data and the experience of the board to estimate with a high degree of accuracy the approximate cost of any proposed building. It is most interesting now to analyze the data gathered then and to find how closely preliminary estimates, based on a cost per cubic foot, checked with the actual cost of construction of the building when finally completed.

Further analysis of the total cost of each of 64 school buildings built by the commission during this period reveals the fact that a definite and fixed ratio existed between the total cost of the completed building and the separate costs of the general construction, heating, plumbing and electrical contracts. This ratio expressed in percentages is clearly shown in the following table:

General construction contract:	80.89 per cent of total cost of building.
Heating contract:	10.47 per cent of total cost of building.
Plumbing contract:	4.95 per cent of total cost of building.
Electrical contract:	3.69 per cent of total cost of building.

In designing and preparing for construction of school buildings in Boston, great importance was attached to the careful consideration of the two factors named, cost per cubic foot and relative percentages of the four divisions of the work, which proved most valuable to the commission in the following:

1. In furnishing preliminary estimates for proposed buildings, making it possible to ask for definite, accurate appropriations based on these estimates.
2. In avoiding wasteful and extravagant design which might cause the cost of building to exceed the appropriation.
3. In detecting evidences of collusion in bidding.

4. In preserving standards of construction.
5. In standardizing construction costs.

The commission, having knowledge of the educational requirements of any proposed building, could estimate very closely not only the final total cost of the work, but also the cost of each of the four sub-divisions named—general construction, heating, plumbing, and electrical work.

The data gathered during these years was quickly cast aside as no longer usable during the period of the world war. Construction costs of school buildings began to soar, because of the rapid rise in labor and material, and the building of schools throughout the country was greatly curtailed or temporarily abandoned. The cost per cubic foot in Boston increased from 23 cents to 73 cents. Contractors were not enthusiastic for contracts at fixed amounts, but preferred doing work on a cost-plus basis, and, like other cities, Boston had to pay the price or suspend the building of schools.

While the peak of high prices is past, we are still building in a period of very high costs, which will unquestionably last for some time. There is also considerable fluctuation in the costs of construction of buildings of the same size and requirements and similar in design. It is during this period, when the demand for

school accommodations is greater than ever, when prices of construction are extremely high, that, in justice to the taxpayers—who are responding so generously to school needs—the officials in charge of the building of schools should exercise the greatest care to save every dollar possible, by the closest scrutiny of all bids received for schoolhouse construction. Not only should the cost per cubic foot be carefully considered, but a minute analysis should be made of all the sub-divisions of the contracts which go to make up the total cost of the building.

It is with this idea in mind that I shall endeavor to give the experience of Boston in the method used in the analysis of one of the sub-divisions of cost, namely, the heating, and to give data which will show how such analysis has served as a valuable check in keeping the cost of this portion of the work within reasonable limits.

Recently I noticed two school buildings (not in Boston) which were estimated at certain costs per cubic foot. The bids received were slightly in excess of the estimated cost measured on the cubic foot basis, the contracts were let, and the buildings are now being erected. If a careful analysis had been made of the sub-bids, it would have been found that in each of the buildings in question, the cost of the heating system was excessive and entirely out of proportion to the total cost. These two cases are sufficient to show that failure to make such an analysis resulted in the unnecessary expenditure of several thousands of dollars.

While we all feel that the cost per cubic foot is the only method which can be relied on with any degree of accuracy in estimating the probable total cost of a building, we should never lose sight of this fact—that only a slight variance between the estimated cost per cubic foot and the actual cost per cubic foot means a difference of thousands of dollars, especially if the building is of the junior or senior high school type.

Let us take a supposition case: A senior high school, to contain 2,500,000 cubic feet is estimated to cost 52 cents per cubic foot. Bids are received, and the actual cost per cubic foot amounts to 55 cents, or a difference of three cents per cubic foot. In dollars and cents this means a difference of \$75,000. Such a great difference should prompt the official in charge of the building of schools to locate for himself by careful analysis the cause of this difference, and determine whether it is due to a material rise in the cost of labor and materials or to wasteful and extravagant design in any or all of the four sub-divisions of the work.

What, then, is the best method for the school building official to use in analyzing the bids received for the installation of a heating and ventilating system in a school building, and what is the proper basis for determining whether the cost of the system is in proper proportion to the total cost of the building? Many here will say a quantity survey, which, of course, is accurate, and is one which the contractor uses in making up his bid. For the school building official, however, this method is laborious and long-drawn-out, and estimates of special apparatus, such as boilers, pumps, valves, etc., which go to make up a heating system, are difficult at times to obtain, and those obtained by him are usually much higher than those obtained by the contractor when the

building is being figured in the open market.

Several other methods have been advanced, the merits of a few of which I will discuss as follows:

1. Cost per pupil.
2. Cost per classroom.
3. Cost of heating per cubic foot.
4. Cost based on relative percentage to total cost of building.
5. Cost per square foot of equivalent direct radiation.

Cost per Pupil. This method, applied to heating or any other costs which go to make up the total, gives misleading and indefinite results. The number of pupils to occupy a building varies under different conditions, depending on the particular use of the building and on educational standards.

Cost per Classroom. Costs considered on this basis are also unsatisfactory in a modern building, which may demand in addition to classrooms various smaller rooms, such as a principal's office, a teachers' room, a nurse's room, store, book and locker rooms, together with a gymnasium and assembly hall. It is extremely difficult to divide a building of this kind into classroom units for the purpose of figuring construction or heating costs. This method, therefore, should not be used, except possibly for comparing buildings containing classrooms only, and which are of the same type and construction and built in the same locality.

Cost of Heating per Cubic Foot. This method of figuring will give varying results in comparing cost of heating and ventilating systems for buildings located in different places. Heating requirements are different for different sections of the country, depending on climate, exposure, etc. Further, different localities have different laws and regulations in regard to heating and ventilating systems. This is, however, a fair method of checking costs if the comparison is between two buildings of the same type of construction in the same locality, with the same climatic conditions and the same laws governing heating and ventilating installation.

Cost Based on Relative Percentage to the Total Cost of the Building. As already stated, this method was used extensively in Boston prior to the world war, and could be relied upon to be very accurate in making a preliminary estimate or checking an actual cost of a heating and ventilating system. Data gathered on recent buildings show that there is a greater variance in the relative percentage costs of heating than in the buildings constructed in the period preceding the war. This may be accounted for by the fact that prices of heating and ventilating material have not advanced in the same proportion as prices of material used in other lines of work.

As will be shown later, this method of estimating does not give as close results as cost of heating per cubic foot. Whenever this method is used as a means of comparing heating costs on two buildings, the buildings compared must necessarily be of the same type of construction, because it must be understood that the percentage cost of heating on second-class constructed buildings is always higher than on first-class constructed buildings, other things being equal.

Cost per Square Foot of Equivalent Direct Radiation. It has been my experience that this method of estimating or checking heating costs gives better results than any of the other meth-

¹Address before the National Association of School Business Officials, St. Louis, May 15, 1923.

ods discussed. Its results approach more nearly those obtained by a quantity survey. It is as definite, as applied to a heating and ventilating system, as the cost per cubic foot as applied to the building. While, like the cost per cubic foot applied to buildings, it varies in different localities, to my mind it is the best and most accurate method available for use of school building officials in estimating or checking heating and ventilating costs.

Below is given a table, which shows the cost of heating per cubic foot, the relative percentage cost of heating, and the cost per square foot of direct radiation on five schools just completed or in process of completion. All of the schools are in Boston, except the Adams junior high school. The buildings contain the same type of design of heating and ventilating system, namely, vacuum low pressure systems of heating and plenum systems of ventilation. The fresh air for the various classrooms, which amounts to thirty cubic feet per minute per pupil, is heated by means of primary radiators located in the basement. The desired temperature of the air leaving the primary chamber is obtained by mixing dampers controlled automatically by a graduated acting thermostat located in the main ventilating duct. The various rooms are heated by direct radiators of the wall pattern placed directly under the windows. The desired temperature of the classroom is maintained by a positive thermostat located directly in the classroom which opens and closes the automatic control valve.

NAME OF SCHOOL	Cost of Heating per Cu. Ft.	Relative Percent- age cost of Heat- ing to Total Cost	Cost per Sq. Ft. Equivalent Direct Radiation
Public Latin	\$0.0385	6.9%	\$1.73
Frank V. Thompson	.0441	7.3%	1.78
Theodore Roosevelt	.0312	7.2%	1.60
Charles Sumner District	.0360	8.3%	1.58
Adams Junior High	.0300	8.6%	1.70
Average	\$0.0360	7.7%	\$1.70

By averaging the three columns in the above table, three factors are obtained which can be considered as fairly representing in Boston today the cost of a heating and ventilating system as described above. These figures were used in the checking of the heating and ventilating bid on one of the latest buildings in Boston, namely, the Dorchester high school for boys. The contracts on this building have just been let, and the work has started. The building is a senior high school, first-class construction, and contains a heating and ventilating system similar to that described.

Total cost of building, \$1,094,876
Cubic contents, cu. ft. 2,502,981
Amount of equivalent direct radiation,

sq. ft. 44,000

The three averages shown in the above table were actually used in checking the cost of the heating in this building, and they serve as a concrete example in illustrating the three methods of estimating, viz: (a) cost of heating per cubic foot; (b) relative percentage cost of heating to total cost, and (c) cost per square foot equivalent direct radiation. The results are as follows:

(a) 2,502,981 by .0360. \$80,107
(b) \$1,094,876 by .0770. 84,305
(c) 44,000 by 1.70 74,800

It will be noticed that quite a difference exists in the results obtained by the three methods of figuring, but these results indicate that the cost per square foot of equivalent direct radiation method gives a closer estimate of the cost of the heating and ventilating system, since the actual heating contract price on this particular building was \$72,300, or \$2,500 less than estimated above. This method of figuring is being used in checking costs of heating on other school buildings, and gives results equally close.

After being assured that the contractor's bid

on the heating and ventilation system is a correct one and in proper proportion, a further analysis can be made of the bid before the contract is approved and signed. It is the practice in Boston to ask the successful contractor to furnish a sub-division of his contract on a standard form furnished by the schoolhouse commission. This sub-division contains a list of the important items which are included in a heating and ventilating system. Beside these items he fills in the costs or the amounts on which he is to base his estimate for monthly payment. These amounts are carefully checked up, and their relative percentages of the total cost placed beside them. Such an analysis of the Dorchester high school contract is given in the following table:

Heating Contract Analysis—Dorchester High School.			
Main Boilers and Grates	\$ 6,475	8.95 %	
Boiler Settings	5,014	6.94 %	
Smokepipe, Boiler Trimmings, Coal Wagon, Fire Tools, Damper Regulator, Blow-off Tank, Hose and Rack, and Gauges	1,347	1.86 %	
Direct Radiation	5,650	7.82 %	
Brass Pipe and Fittings, Iron Pipe and Fittings	4,695	6.50 %	
Valves	2,567	3.42 %	
Vacuum Pumps and Motors	1,470	2.13 %	
Covering	2,500	3.46 %	
Ventilation System:			
Fans and Motors	\$ 4,200	5.79 %	
Galvanized Iron Work	16,900	23.37 %	
Vento Radiation	1,800	2.54 %	
	\$22,900	31.70 %	22,900 31.70 %
Automatic Control			4,595 6.35 %
Oil Burning Equipment			4,800 6.64 %
Labor			7,500 10.37 %
Miscellaneous	\$ 1,185	1.64 %	
	535	.74 %	
Bond	\$ 1,720	2.38 %	1,720 2.38 %
Total Contract			\$72,300 100.00 %

Textbook Selection

Gilbert G. Weaver, Professor of Industrial Education,
University of Pittsburgh.

II. Mechanical Elements.

1. Size.

- A. Size of pages.
- Unusually large—clumsy.
- Standard.
- Convenient for pocket.
- Small—odd size.

2. Binding.

- A. Paper.
- B. Cloth.
- C. Board.
- D. Leather.
- E. Durability.
- F. Attractiveness.

Each of the preceding six items relating to binding is to be judged as excellent, fair or poor.

3. Cover Design.

- A. Color.
- Excellent.
- Good.
- Fair.
- Poor.
- B. Decoration, if any.
- Excellent.
- Good.
- Fair.
- Poor.

4. Paper.

- A. Finish.
- Plain.
- Gloss.
- Dull.
- Porous.

5. Type.

- A. Size.
- Very large.
- Standard.
- Smaller than standard.
- Very small eyestrain.

6. Paragraphing, Chaptering, Italics, Bold Face Type, etc.

- Attractively arranged.
- Varied styles of type for emphasis.
- Average—Nothing unusual.
- Monotonous—Unattractive.

III. Content.

(Concluded on Page 152)

n, to em-
ity of a
ating and
ilding, a
be made
ion of it
d method
building
imates or
ood, how-
form cost
applicable
s impossi-
per cubic
must de-
e foot of

8.95%
6.94%
1.86%
7.82%
6.50%
3.42%
2.13%
3.46%

31.70%
6.35%
6.64%
10.37%

2.38%
1.48%
0.00%

elating to
r or poor.

ics, Bold

School Administration as a Career

W. N. Anderson, Anita, Ia.

The young man who expects to become a school administrator should find out as early as possible what preparations he will be obliged to make, what his chief work will consist of, and what his remuneration or reward will be. He should study and analyze himself carefully to see whether or not his natural abilities, desires, and temperament are such that he will have a fair chance for success. If he expects to go into this field with the thought of making it a life's vocation, it is all-important that he have an understanding of what is required in natural ability and preparation, as well as what his chief duties and responsibilities will be. Without knowing in a general way what is involved one cannot be sure that he will like the work, and upon this his success will very largely depend.

Importance of Knowing What is Involved.

Choosing a vocation is one of the most important things one has to do in a lifetime. Especially is this true if the vocation is one which requires several years of preparation and an additional number of years of experience to become established. Life is too short and competition too keen, generally, to allow a second choice in a different field without serious loss of time and effort. It is true that many do succeed in other lines after having given a number of years to some particular calling, but they are as a rule not those who have made extensive preparations.

A young man with good character, and with fair scholarship, judgment, and tact has a reasonable chance for success as a school administrator, if he develops the right attitude and is willing to submit to the necessary training and discipline. If he does not possess these qualifications, if he is not sincere, or does not like the work, he will not be successful and should find employment where he will do less harm. No one should be led to think that the school administrator has an easy, carefree, and independent life. There are real drawbacks and disadvantages in this vocation, but the same may be said of many other vocations in which the drawbacks and disadvantages are just as great, but are of a different nature.

A good man usually outgrows his first and second position and goes to a larger or more responsible place, or he fails of reelection because of something he did or did not do to suit certain individuals in the community. Many also are obliged to move on because they fail to measure up to the requirements in some way or other. This, however, is often a blessing in disguise. It goes not mean that they will be unsuccessful in their next place. Often they overcome their mistakes or shortcomings through this experience, obtain better positions, and eventually become good school men.

The colleges have been partly responsible for many failures, because they have generally failed to teach the things that a beginning school administrator should know. The outlook for the future, however, is better. Men are being better trained and communities are beginning to realize the disadvantages of too frequent changes. More earnest efforts and greater sacrifices are being made to employ and retain capable men. Better salaries are being paid and it is reasonably safe to say that in the future the tenure will be more permanent for those who are qualified.

The School Man of the Past.

It is true that in past years the school man has often been ridiculed and his work spoken of

more or less disparagingly. In smaller communities especially he was frequently looked upon as a man who did not possess enough courage and "pep" to compete with men in the business world. Often such views have been held unjustly by those who did not understand him or the importance of his work. Often, too, they have been quite correct and justified.

School administration as a profession is comparatively new, and until recent years many posed as educational leaders who had had no professional training or administrative experience; who knew no more about school work and educational problems than the average citizen of the community; and who frequently knew far less about the social, political, and economic problems of the community. Frequently their election to the position was a matter of politics, and with little or no regard for qualifications, excepting ability to shake hands, make a speech, or inflict corporal punishment.

Others were often serious-minded young men with more or less learning and education, but no understanding of human nature and social problems. These not infrequently were narrow and imagined that when they were graduated from some particular course of book learning their education was finished; and that thereafter their business was to advise everyone, both in and out of school. They generally failed to take part in the activities of the community, but cloistered themselves away from the actual community life, acquiring the solemnity and dignity of an owl, and setting themselves up as kings or czars in a little world of their own creation. Instead of growing broader and larger mentally, they only became narrower, more conceited, and more dictatorial. It is needless to say that this type of man seldom stayed long in one place or built up a school system.

It is largely because of the low standards or requirements of the past, and of the type of men often employed that the school man of today is still looked down upon by certain individuals, who think of him in terms of what he was when they attended school. This should not be construed as implying that in the past all school men belonged to this class and that today they are all well qualified. There have been many sincere and capable men in school work in the past and there are still many poor ones today, but there has been a great improvement in recent years, and it is safe to say that the relative number of qualified men has been and is increasing.

The School Administrator of Tomorrow.

The school administrator of tomorrow must be well qualified if he is to be a safe leader. Besides a certain amount of general scholarship and special training he must know the problems

Teacher, with the earnest frown and the nervous little smile, I am sorry. I am sorry for the mischief I did so long ago, when you were thirty and I was ten. I am sorry for those innumerable acts of mine that added to your full measure of burdens and worries. I am sorrier still for my thirty-odd years of silence. But if I know you as I think I do, I believe you will not withhold forgiveness.

I would not lay a flower now on your grave if I could, since I lost my chance to send a rose to the living; shame would forbid. I can only hope that you found others kinder than I, and that before you lay down for your final rest, some of those things for which you hungered—whatever they were—came into your life to reward you.—W. A. Dyer, in Collier's.

of society, which means that he must keep in contact with and be a student of the various social problems and industrial movements of his own community and of the country at large. His position today, if he is well qualified, is a high and noble one. It affords an opportunity for keeping in contact with good books and great minds, and is a constant challenge to the best there is in a man. Nor is it putting it too strong to say that hardly another calling offers greater opportunities or reward for molding the lives of others and building for the future. The schools eventually come to stand for what the administrator stands for. It is what is taught in the schools and the way it is taught that shapes the ideas and ideals of the coming generation. The boys and girls of today are the citizens of tomorrow, and upon the training and development of their insight and ideals depends the fate of the nation in the days to come.

A young man ought to be willing to spend a number of years in preparation to secure a position as principal or superintendent in even a small place, and to continue studying and working until he is qualified to hold a larger or more responsible position. It is a fine and worthy investment that yields the highest returns. The contentment derived from serving others intelligently is more wholesome and more permanent than any other form of contentment of which a human being is capable. The returns may be more remote, and in dollars and cents may not always compare favorably with those of various commercial pursuits, but if he is interested in his work his ideal will be achievement rather than dollars.

And there is an opportunity in this field for achievement. As evidence of this we need only to reflect for a moment on the changes and improvements that have been made within a few generations in the training of children. We see the schools when they were for a small upper class, and with subject-matter which aimed only to intensify their aristocratic supremacy; when the masses had neither political nor educational rights. We see them when the chief interest and stamp of culture was an acquaintance with the deeds of a few great men, recorded in the classic languages and available only to a limited few. We see them when knowledge was chiefly for knowledge's sake, and for men only; when there was no conception in education of man as a social creature with reciprocal relations and duties to others. We see them when there was little or no interest in science or industry; in economic-social, or educational problems.

Great improvements have also been made in the methods of teaching, but we will probably never fully understand the possibilities in training boys and girls. To quote Thorndike, "The psychology of a single ten-year-old boy would probably involve as much subject-matter for investigation as the astronomy of the solar system or the geology of a continent."

In short, it may be said that the young man who is capable and willing to make adequate preparations for an educational career may now be reasonably sure of making a good living for himself and his family, and to lay aside something for old age. Those, however, whose highest ambition is the acquisition of money and whose standard of success is its amount should not enter the field of public school work as they will likely not reach their goal by that route.



A BIT OF THE CAMPUS, NORTHERN ILLINOIS STATE NORMAL SCHOOL, DE KALB, ILL.

Beautifying Village School Grounds

Frank K. Balthis, DeKalb, Ill.

(Concluded from June)

The perennial flowering plants are almost indispensable in the garden, whether it be large or small. These plants are especially useful because they grow from year to year without necessitating replacement. Many of them are excellent as cut flowers for decorating the schoolrooms, and for wonderful mass effects. It is unnecessary to enumerate many of the desirable kinds, but the following are fine for cutting and for massing. They do best in a deep, rich soil and should be planted close enough to touch when the plants mature.

Perennial Plants for General Utility.

Columbine—*Aquilegia* in variety.
Coreopsis or Tickseed—*Coreopsis lanceolata*.
Shasta Daisy—*Chrysanthemum maximum*.
Spring Marguerite—*Chrysanthemum leucanthemum*.
Larkspur—*Delphinium* in variety.
Cone Flower—*Rudbeckia*.
Heavenly Blue Flower—*Anchusa Italica* Dropmore.
Phlox in variety.
Phlox Miss Lingard—earlier than the ordinary type.
Anthemis Kelways Hybrids.
Achillea "The Pearl."
Hardy Asters in variety.
Lily-of-the-valley. Good for shady places.
Grass Pinks—*Dianthus plumarius*—in variety of color.
Gaillardia — Blanket Flower — in a variety of red and yellow shades.
Baby's Breath.
German Iris. *Iris Germanica* in many varieties—good for shade.
Peony—*Paeonia officinalis* in many colors.
Painted Daisy — *Pyrethrum roseum* — Deep rose to white.
Speedwell—*Veronica subsessilis*—Deep Blue.
Japanese Windflower — *Anemone japonica* — White and rose.
Mourning Bride—*Scabiosa caucasica*—In variety.
Mist Flower—*Conoclinium*—Blue or violet.
Sweet William—*Dianthus barbatus*—Wonderful colorings and useful in combination with fox-glove, larkspur and Canterbury bell.

Varieties of perennials may be selected so that flowers may be had from early spring until late in autumn, but, as with all plant life, they require constant attention to obtain the best results. Complete lists, giving time of flowering, height and color may be obtained from firms handling them. Many firms make a specialty of these wonderful plants so there is no reason for not having varieties to suit every occasion and all sized plots of ground. The study of

perennial plant catalogs should be carried on in season because full information of a general nature is usually given. Perennials require about three years to reach maturity; the individuals should be planted far enough apart to allow for future growth.

Annual flowering plants are of great importance for decorative purposes. They differ from perennials because it is necessary to sow them each year—the seeds are sown in springtime, the plants grow, flower, fruit and die to the ground in a single season, thus a complete cycle of life is rounded out in a few months. Annuals are useful to clothe bare places that may appear among the perennials during the first two years, or until the perennials have grown to maturity. Many of them are unique for massing, for use as cut flowers, to utilize in combination with other plants. Some are indispensable for window boxes and hanging baskets. In fact, they are general purpose plants where quick results are desired. The flowers of some annuals are so highly colored that they are difficult to utilize in some situations, but on the whole they appeal to the great majority of people. Who has not observed combination beds of the red or scarlet cannas, fountain grass, flowering sage and a border of sweet alyssum or other low plant! Beds like these are usually found located in the center of the lawn where they immediately attract the eye to the exclusion of everything else. Highly colored plants should be used in the border or arranged for harmonious effect. An annual garden with soft, delicate colors is usually in better taste than one with high, gorgeous, intense coloration. The softer hues blend quietly with the shades of green shrubbery, and lend a refreshing restfulness that is appreciated at the end of a long, hard day of labor.

Annuals of Value for Cutting—for Cut Flowers.

Floss flower. *Ageratum*.
Sweet Alyssum.
Snapdragon.
African daisy.
Pot Marigold.
China aster.
Corn flower.
Tickseed—*Coreopsis*.
Cosmos.
Larkspur—the annual varieties.
Chinese and Japanese pink.
California poppy.

Blanket flower.
Grasses.
Sunflower.
Everlastings.
Heliotrope.
Mexican poppy.
Shirley and other annual poppies.
Candytuft.
Sweet pea.
Love-in-a-mist.
Common stock.
Mignonette.
Marigold.
Nasturtium.
Verbena.
Pansy.
Zinnia.

It is difficult to transplant several kinds of annuals—these should be sown where they are to grow and thinned to enable the individuals sufficient room to develop. Among these are the cornflower, californian poppy, sweet pea, malva, love-in-a-mist, the nasturtium, and poppy.

To have flowers over a long season it is well to provide for a succession of sowings for several kinds—among these are the love-in-a-mist, poppies, candytuft, tickseed, mignonette and forget-me-not.

Many annuals are started early in the house in boxes to secure early bloom. Suggestive varieties are the pansy, snapdragons, verbena, salvia or flowering sage, petunia, heliotrope, lobelia, cosmos, stock, and nicotiana or flowering tobacco.

Annual Vines.

Annual vines are of use for covering fences, outbuildings, or other places that would appear better with masses of foliage and flowers over them. Among these are the moon vine, Hyacinth bean, wild cucumber, hop vine, scarlet Indian runner, cypress vine, Japanese morning glory, common morning glory, balloon vine and Alleghany vine. The wild cucumber is found growing wild in many places and the young plants can be easily collected and transplanted where wanted. They should, however, be gotten when about an inch high. Moon vines should be started early in the house to obtain for a long season.

In the development of all grounds where trees and shrubs are grown it is very essential that the care of these plants be understood. Aside from the general care of keeping shrubbery beds

spaded annually, properly fertilized and watered it is necessary that yearly attention be given to pruning. This is an operation which may be undertaken during midsummer or early spring. Midsummer pruning may be given those shrubs which flower in May or early June, the most favorable time being the latter half of July, because the flowers will have passed and the plant will be ready for making new growths. Pruning, however, is more frequently done while the plants are dormant, which is before the sap has begun to flow. February, or early March, is a very good time to complete the work.

Shrubs may be classified for pruning purposes according to their time of flowering. Lilaes, Van Houtte's spirea, deutzia, mock orange, etc., flower on wood made during the previous year and should be pruned in midsummer, or after flowering. The hydrangea, rose of Sharon and other autumn flowering shrubs should be pruned during winter or while dormant. A good rule is to prune after the plants have flowered in order to avoid cutting off the flower buds.

It is not good practice to simply clip the ends of the branches because, by so doing, an accumulation of wood in the center of the plant prevents new growths from developing. Old wood should be removed by cutting at the bottom of the stems, not left to choke the plant. Removing old wood annually keeps the plant in a healthy, vigorous condition but subsequent pruning should consist in cutting back a third to a half of the yearly growth. It is always necessary to keep the plant in shape by shortening any long, rampant growths that may appear. Shrubs planted in mass should be pruned

in accordance with their effect on the group and not as individuals.

Shearing of shrubs should be done only when they are used for a formal effect or when grown as a hedge.

Plants to Attract the Birds.

If there is any place where the birds should be encouraged to nest and remain it is on the schoolground. Every man, woman, and child loves the feathered folk—note the expression of real joy on the face of the child when he is able to report the arrival of the first robin. How happy he is!

Birds may be encouraged to linger on the schoolground if congenial hiding and nesting places are provided for them. Food and water must also be accessible. Water is easily supplied and abundant food stores may be had if care is exercised in the choice of plants. These may be included as a part of the scheme of planting. Twiggy plants provide perfect nesting places, and if they are supplemented by the installation of nesting boxes, which may be manufactured by the students of the manual training course, and placed in trees and about premises, the number of species of birds will be greatly increased. The study of nesting boxes is very interesting in itself, because certain birds require a particular kind of box to entice them.

It is unnecessary to list all the plants that attract the birds, but those which produce edible fruits are the most sought after because they furnish rich food at a time when seeds are scarce or unripened. Although many birds are very fond of cherries and other cultivated fruits, the harm they do is insignificant compared to the beneficial effect they have through

the destruction of insect pests. The robin is probably our most friendly bird and consumes an abundance of fruit, yet out of 1200 stomachs of robins examined by authorities the percentage of wild fruit was found to be five times that of the cultivated varieties. It is suggested that fruit-bearing shrubs be planted alongside orchards to lure the birds away from the cultivated fruits.

A short list of fruit-bearing shrubs is appended and may be used as a basis of choice for schoolground use.

Shadbush,

Chokeberry.

Barberry—Not *B. vulgaris*, as it is the host for wheat rust and should not be planted.

Dogwood in variety.

Bush honeysuckle. One of the best shrubs for fruiting.

Red Mulberry. A fruit-bearing tree which is highly prized by the birds.

Wild cherry and plum.

Elderberry. The black fruits are eaten by nearly all birds.

Indian currant.

Snowberry. Attractive to the junco, finch and grosbeak.

Wild grape. The fruit is eaten by many kinds of birds. A fine plant for the fence.

Sumac—*Rhus* in variety. The fruits are eaten by all birds, or nearly all. The plant is very attractive and easily grown.

Mountain ash—*Sorbus* in variety. All the commoner birds enjoy the fruit of this decorative plant. A small tree, easily grown.

Snowball family—*Viburnum* in variety. A fine group of shrubs. The fruits are very attractive and is of value for birds.

Roses. The hips or seeds of many kinds of roses are eaten by many kinds of birds. All native kinds of roses are excellent for their edible seeds as well as the desirable Scotch, Japanese, and memorial rose.

Our School Board

By the President.

Several years ago, when I was catapulted into the presidency of our local school board by a political upheaval in our community, I took my place at the head of the table with the feeling that I was about as welcome in that little group as a killing frost in June is welcome to a fruit grower. I was a newcomer, a green hand. I didn't know anything about the affairs of the school district. I was the youngest man in the crowd by several years, and I could just feel the attitude of the members of that board, many of whom had been strong friends and backers of the former president.

There was one member who had, like myself, just been elected in the upheaval. The attitude toward him was not as strongly antagonistic as toward myself, for I had upset one of the community's great men, a lawyer and supposed political power, while my newly-elected colleague had simply displaced a bank cashier. During the first few months that new member and myself held frequent conferences. We realized that to do any good for the school we must all work together and not be divided into factions; there had been too much of that in our locality as it was.

So my newly-elected colleague and myself simply "sat in and got used to the atmosphere," as he called it, until we "got the hang of things" and created a spirit of friendliness with the rest of the board. It didn't take us long to get on good terms with our fellow board members. When they saw that we were not going to dictate, but were merely interested in the good of the school and believed that, in order to attain the best results, we must all work together and have a hand in all things, they became friendly,

had confidence in us. Our board meetings came to be looked forward to as really enjoyable gatherings.

For several years now we have worked in perfect harmony and we have done things for our school. Not that we don't have our differences. Show me seven men who in this day and age all think alike all the time on all subjects! We all have our say and when we've all had it we get down to business and act and there is never any hard feeling following our ultimate decision on a subject. And as school boards everywhere are pretty much composed of the same sort of individuals, I am going to tell a little about the various personalities of our board and show how it is that we work so well together.

For instance, there is A, the fellow who was elected to the board the same time that I was. A is an automobile garage owner and agent for a line of farm machinery. He is a big, jovial, good-natured fellow who was born in Germany and enjoyed the advantage of scarcely any education. He is determined that his children shall have what he didn't have, and he is one of the staunchest "good school" boosters in our community. He is naturally a keen business man and his final judgment on a subject is pretty sure to be absolutely "right." He can scarcely write a legible letter in English without using some German letters or phrases, yet he has been a success as a business man and a pronounced success as a board of education member, and his children stand well up at the head of their classes. He's one of the best possible kind of board members, a man who wants the children of today to have what the

children of yesterday didn't have, a strong believer in education, and a tireless "good school" booster. Yet when he ran for office he was fought on the grounds that he was ignorant and not a college graduate like the bank cashier whom he defeated. But he is a better board member than his college-bred predecessor ever thought of being. It does not take a college man to make a valuable school board member in a rural community.

Then there is B, a quiet, easy-going sort of a chap, who always likes to believe that everything is going to come out all right and is quite inclined to follow lines of least resistance. B is a friendly fellow and has been on our school board for years; in fact, since the organization of the district. He is secretary of our board and president of another school board in our community. He is calm and quiet normally and is never opposed at an election because he is considered a harmless fellow. But on occasion B can rear up and fight, and he has showed that ability frequently in recent years in fighting for good schools. He has a large family and, like A, he wants to see his children have a better chance than he himself had to secure a good education.

Then there is C. C is a farmer and, when I was first elected to our board, he had me guessing. I could classify and place all the other members, but C was an enigma. He was a big, bluff fellow who would sit through a meeting looking like a thunder cloud and hardly saying a word. However, when it came to a vote C was always voting on the right side of a proposition. After I got to know C better, I found that his rough exterior covered a most

humorous and good natured interior, and although he blows off frequently in his thunderous way, he is one of the staunchest friends a school or a person ever had. He has given his children the benefits of a great deal more education than he himself ever obtained and believes that the only kind of a school to have is a good school.

Next comes F. F is also a farmer and like B has been a member of the board since the organization of the district. F is the quiet man of the board. Very rarely will he voluntarily start a discussion but, when he does get into a discussion, his remarks are very few and very much to the point. When it comes to a vote on any proposition, F always votes right. F is a big, good-natured, quiet fellow, not an aggressive fighter, but a loyal good school man and a substantial citizen to have behind any meritorious proposition.

Then comes W. W is one of the scrappers on the board. By scrapper I don't mean a trouble maker, but simply a good fighter for good schools, and an aggressive fellow who has his opinions and expresses them forcibly and plainly. W is also a farmer and he, C, and F bring to our board meetings the viewpoint of the farmer taxpayer, which makes it possible for us to look at our school problems not only from the standpoint of the town taxpayer, but the farmer as well, and in that way we are able to chart our course so as to give the best results to all of the patrons of our school. W, as I said, is an aggressive fighter. He is a successful farmer, a self-made man. A man who had very little education himself but believes that his children should have greater advantages than he himself enjoyed. W has decided ideas on all matters that come up for discussion and expresses his views clearly and always for the best interests of all concerned.

Finally on our board there is D. D is the one really educated man in our whole crowd. He is a college graduate, a physician, a specialist, a man who inherited money and married money, and he is the stormy petrel of our board.

He has more ideas at one meeting than all the rest of us put together have in a year, but a lot of D's ideas are wild visionary dreams. D is a sort of utopian dreamer. The board listens to his tirades and then goes along its way and acts. D's really good ideas are adopted, the rest of them are scrapped. The balance of the board acts as a sort of balance wheel for D's visionary ideas. We let him rave, and if there is any good in his subjects, the good is used and the rest tossed away. It is really comical at times to watch the board acting as a threshing machine for D's ideas. The good is the wheat and the visions the chaff. Usually the chaff pile greatly outweighs the wheat, often to D's disgust, but he gets over it manfully and works well.

The great trouble with D is his inconsistency. One minute he is greatly enthused over some pet plan of his or over some idea which has been presented to him; the next minute he thinks that all wrong and has an entirely different viewpoint. A whole board of D's would be a disaster, but with only one on the board the rest hold him in line and things go smoothly.

That's the make-up of our board. I'm the only one left, and I'm only an ordinary mortal with only a part of a high school education and a lot of valuable experience from personal contact with life. Our board works well together. We differ on some things, but we don't get personal in our differences. We do our arguing before we get down to a vote, and, after we get everything threshed out, our vote is usually unanimous.

Our school superintendent told a friend of his in a distant part of our state that the board he is working for at present was the most mixed bunch of men he ever saw on a board and by far the smoothest working board he ever worked for. He didn't expect we'd ever hear of that statement but we did. We are mixed, mixed in nationalities of ancestors, mixed in private interests, mixed in dispositions, and yet we are a smoothly working organization. With our mixed interests and nationalities of ancestors,

we are enabled to get the varied viewpoints of all interests and nationalities, and with these viewpoints before us, we are enabled to map a course for our school which will be to the best interests of the community which we serve.

Like every other school board, we have our shortcomings. We don't visit the school enough and get in as close personal touch with our teaching force as we should. Personally, I try to maintain that close contact, but I have an awful time getting the rest of the board to do it. The members are busy and widely scattered, I know, yet I would like to see a closer contact between board and school. I don't like to have my board members put too much confidence in my reports. I like to have them see and know conditions for themselves.

We are a peculiar board in one respect, I believe. Only in very rare cases do we have committees. We act on all subjects as a committee of the whole. It takes longer, but it has proved more satisfactory in our case. In acting altogether we all have our say on every topic that comes up, we all know all that's going on and every member has his voice in all affairs. The members like this and the public likes it, for when a citizen asks a board member about some particular thing, that board member knows all about it and can talk intelligently on the subject without having to ask some member of a committee about it. It is this free and open discussion of all our affairs that has made us a successful and smoothly working board of education, and has built up in our organization a loyalty to each other and to our school that is remarkable.

We have a harmony that is too often lacking in many school boards. We are a mixed crowd, but in that very mixture lies our success. We are mixed in our nationality of ancestors, in our private affairs, and aims in life, in our modes of living, in our dispositions, and in our religion, but we are all working heart and soul for one great cause—the betterment and advancement of the American public school.

Score Card for the High School Principal's Annual Report

Frank C. Touton.

The Problem Stated.

The high school principal's annual report seldom presents an adequate picture of the work of the school for the year covered.

In a large business enterprise today, the board of directors demands of its executive officer that a careful business inventory be taken annually covering capital stock invested, agencies employed in production or sale goods, cost of doing business, gross and net earnings by departments and totals. A critical examination is made of the procedure used in each department of the business, with a view of determining the policies to be carried out during the ensuing year.

A plan not wholly different from that utilized in up-to-date business methods is here recommended that each school may be held to account for pupil material and other materials used. The profession of school principalship will be held in yet higher esteem by the public when that public knows that good business methods are used in all school accounting. The time will come when we measure the success of schools by the educational dividends declared on capital stock invested.

Few successful business enterprises are subject to such wholesale changes in management

¹Made with reference to the needs of an incoming principal.

as are high school principalships. The short tenure of office of high school principals emphasizes the need for adequate reports—reports made each year in each high school and in such detail as would give the incoming principal full knowledge of the conditions existing in the school, the condition of the school plant and equipment, the costs of the plant upkeep and of instruction, the notable successes and failures of the year, and recommendations based upon the conditions existing in the school at the close of the school year.

My experiences in the work of a high school principalship, in state high school supervision, and in teaching courses in high school administration, all lead me to the conviction that each year the high school principal should render to the city superintendent or school board a report complete in detail; such a report as one would desire were he at the beginning of the following school year to take over the principalship work of that school as an entirely new project. It is my firm belief that the fact that a principal will in all probability retain his position for another year, should not in any way operate to limit the completeness of the annual report. It should be made by each principal each year, as though the making of the report were to be the last official act of the principal in the employ of his board. Moreover, it should

be made so complete in form and so clear as to the vital issues at stake as to enhance the success of one's best friend as a successor.

Procedure Followed.

So seldom has it been the writer's pleasure to examine an adequate high school report, that during the past two years his classes in high school administration have worked on this problem. In addition to suggestions coming from various printed school reports, much help on this problem has come from summer session classes in the University of California.² The enrollment in these summer session classes has included approximately one hundred professionally minded schoolmen and women, a majority of whom had previously served as high school principals or were in positions involving executive responsibility in high schools.

Students of vocational education are coming to the conviction that scientific vocational guidance is out of the question until for each job or occupation an intensive and thorough-going analysis has been made. The job analysis of the business of secondary school principalship is as yet only imperfectly made. A beginning in any such analysis must be made by listing the several activities in which individuals pursuing that job do actually participate. This much and more has been attempted in the

²In collaboration with a group of Graduate Students of the University of California.

wpoints of
with these
ed to map
be to the
h we serve.

we have our
ool enough
with our
ally, I try
I have an
oard to do
scattered,
er contact
ke to have
confidence in
and know

respect, I
we have
as a com-
but it has

In act-
on every
that's go-
oice in all
the public
ard mem-
hat board
talk intel-
ng to ask
it. It is

our affairs
smoothly
s built up
other and

en lacking
ated crowd,
cess. We
ors, in our
our modes
our reli-
d soul for
advance-

clear as to
the suc-
.

pleasure
port, that
s in high
on this
s coming
much help
er session
ia.² The
asses has
l profes-
n, a ma-
d as high
involving

the coming
ocational
for each
orough-
o analysis
principal-
. A be-
made by
individ-
participate
ed in the
e Students

items listed in the Score Card for the Secondary School Principal's Annual Report, which is here given.

Certain elements essential to the real success in the principalship work are here listed under the general heads: I. Record of Reports on File; II. Attendance Report; III. Reports on Individual Teachers; IV. Character and Quality of Instruction; V. Student Activities; VI. School and Community Contacts; VII. Classroom Supervision; VIII. Costs; IX. Recommendations.

At first, certain of the materials included in this score card were organized as a list of activities to be reported on each year by a high school principal.³ The members of the group enrolled in high school administration in the 1922 summer session of the University of California made possible through their study and reactions the materials which are now embodied in this report and score card.⁴

The procedure used in the 1922 summer session group was as follows: The items as listed by the class of the preceding summer were presented to the class group of some seventy members. Each member of this group was asked to think through the problem of adequately reporting the work of the school and to supplement or cut down the suggested list of items in such a way as seemed advisable. The suggestions of the several members of the class group as noted on the original list were collected, examined, and evaluated by a class committee, which committee in conference with the writer formulated a revised list of items judged as essential to a report of a high school principal. This revised list was duplicated and placed in the hands of each member of the class group with another request to strike out non-essential items and to supplement with items which had been omitted. These lists as revised were again collected and worked over as before. The organization of essential items as they stand in the card here shown is essentially that resulting from the second series of committee conferences. The list of items was then duplicated and submitted for evaluation to the forty members of the class group who had most experience in and intimate knowledge of the work of the high school principal. Each member acting independently assigned that weight or score to each item which represented in his judgment its proper fractional part of the total 1,000-point score. In making this judgment each item was evaluated by contrast with each other item and with all of the other items in the list.

The weightings as assigned by the class members were totaled and averaged under the direction of the writer. Such minor adjustments were made as were necessary to bring the totals of the Main Division, of the Topics, and of the Sub-topics, each to 1,000 points. The changes required were, however, so slight as to deserve no further comment here.

The card as here shown, then, presents the results of the mature deliberation of a large group of professionally minded principals and future school executives both as to the items essential to the report and as to the relative worth of the several items when considered as a part of the total list.

Variability of the Assigned Scores.

That the average of the judgments of a sizeable group of supposedly competent judges is a better measure of worth than any one individual judgment as to the proper weighting is not now a matter of debate among professionally minded school executives. The scores here assigned are essentially the averages of the

²The suggestions of the summer session class in 1921 were organized by Mr. Hartzel as a term paper.
³The suggestions of the 1922 class were organized by a committee of the class consisting of Messrs. F. W. Kirkham, M. J. Brickley, E. Corrie, and R. F. Aspinwall.

Distribution of 1000 Point Score

Main Division	Topics		Sub-Topics	
	Stand-ard	Indi-vidual	Stand-ard	Indi-vidual
213	32	32		
A. D. 72	36	36		
	25	25		
	120			
			12	
			8	
			18	
				7
				9
				5
				7
				7
				10
				9
				8
				6
				7
121	23	6		
A. D. 35	7			
	5			
	5			
	11	11		
	12	12		
	13	13		
	10	10		
	8	8		
	14	14		
	9	9		
	7	7		
	6	6		
	8	8		
102	6	6		
A. D. 25	11	11		
	15	15		
	11	11		
	13	13		
	11	11		
	6	6		
	10	10		
	11	11		
	8	8		
121	37	37		
A. D. 30	38	38		
	25	25		
	21	21		
	38	38		
A. D. 15	15			
81	14			
A. D. 25	15			
	19	19		
	18	18		
A. D. 37	108	108		
	40	40		
A. D. 39	30	30		
	40	11		
	9			
	10			
	10			
	36	49		
		17		
A. D. 37	44	44		
	25	25		
	16	16		
	25	25		
	1000	1000	1000	Total.

SCORE CARD FOR HIGH SCHOOL PRINCIPAL'S ANNUAL REPORT.

(With reference to needs of an incoming Principal.)

- I. Record of Reports on File.
 - A. General report on progress of the school, mentioning problems and major items only.
 - B. School objectives.
 - C. Significant departures from last year's procedure.
 - D. List of detailed reports on file in the principal's office, (mentioned by title only).
 - 1. Course of study outlines, (a) aims, (b) content, (c) method, (d) texts used.
 - 2. Plan of registration, including that of incoming pupils.
 - 3. (a) Physical records, medical records, remedial measures and results, (b) cumulative record cards, (c) semester records showing students' programs, grades made, honor cards, and vocational interests, (d) records of freshmen sent to grammar school principals, (e) advance registration cards, list of incoming grammar graduates.
 - 4. (a) List of graduates of the year, (b) graduates of the preceding year in higher institutions, with records, and in occupations as listed.
 - 5. Inventories of apparatus, equipment, and books.
 - 6. Method of handling textbooks, lockers, etc.
 - 7. Reports of librarians, heads of departments, and teachers.
 - 8. Duplicate copies of reports to county, state, and federal officers.
 - 9. School calendar, office directions to teachers, file of programs, school annuals, the school journal, and newspaper clippings.
 - 10. Records of teachers (a) academic and professional preparation, (b) degrees received, (c) local experience, (d) total experience, (e) experience outside of teaching, (f) certification, (g) salaries.
 - 11. Outline of curriculum, (b) requirements for graduation.
 - 12. Reports on student activities, (a) officers, (b) faculty sponsors, (c) membership, (d) meetings held, (e) games played, (f) financial reports, (g) inter-school debates.
 - 13. Records of conferences, (a) with faculty, (b) student body.
 - 14. Index to office files.
 - II. Attendance of Pupils.
 - A. Enrollment by months and by year:
 - 1. of school, and comparison with school census.
 - 2. of each grade, part-time, and vocational.
 - 3. per cent from outside district.
 - 4. per cent of increase or decrease over previous year.
 - B. Average daily attendance.
 - C. Average daily tardiness and absence, with main causes.
 - D. Acceleration and retardation chart (age-grade table).
 - E. Number of students withdrawn from school, (a) because of change of residence, (b) on account of illness, home conditions, dissatisfaction, etc.
 - F. Number of days taught. Special holidays.
 - G. Table of promotions, drop outs, and failures by subject and by teacher, (a) by total, (b) by per cent.
 - H. Transportation facilities.
 - I. Summer school records.
 - J. Number sent to parental school.
 - K. Results of "back to school" movement by Rotary Clubs, etc.
 - III. Report on Individual Teachers.
 - A. Name.
 - B. Teaching load in detail.
 - C. General success.
 - D. Effort toward self-improvement.
 - E. Attitude and cooperation.
 - F. Adaptability for special work.
 - G. Leave of absence granted.
 - H. Health.
 - I. Responsibility in connection with school and community activities.
 - J. Proposed summer activities and address.
 - IV. Character and Quality of Instruction:
 - A. Records in standardized tests by class groups. Use made of records.
 - B. Provisions for backward and for unusually capable children.
 - C. Examinations, (a) frequency, (b) types, (c) significance attached.
 - D. Rating system.
 - E. Report on Student Activities (brief summary only, details on file).
 - VI. The School and the Community.
 - A. Evening school.
 - B. Special classes.
 - C. Part-time classes.
 - D. (a) Parent-teacher association, (b) cooperation in civic enterprises, (c) special meetings.
 - E. School advertising, connection of principal with local organizations, etc.
 - VII. Classroom Supervision.
 - (a) Purpose, (b) frequency, (c) subsequent discussions held with teachers, (d) results, (e) time expended, (f) effort made to train teachers and improve technique in service, (g) teacher rating system.
 - VIII. Costs.
 - A. of Instruction:
 - 1. Total salaries paid. (Propositions paid by district, county and state.)
 - B. of School Maintenance:
 - 1. Supplies used.
 - 2. Depreciation on equipment (estimate).
 - 3. New equipment purchased.
 - 4. Plant upkeep.
 - C. Per pupil:
 - 1. By year of, (a) total salaries paid, (b) supplies used, (c) depreciation on equipment, (d) new equipment purchased, (e) plant upkeep.
 - 2. By subject and hour (as in 1 above).
 - A. Concerning items under I, II, III, IV, V, VI, VII, and VIII.
 - B. Equipment needed, (a) general, (b) laboratory, (c) library.
 - C. Janitorial service of building and grounds.
 - D. Budget for ensuing year.

judgments of forty competent judges and as such the evaluations are worthy of consideration.

That a measure of the variability of the class group might appear in connection with each score which represents a class average on the several main divisions, the A. D. or average of the deviations of the group scores is set down for each of the six main divisions. The validity of the average scores as here given is again illustrated by the fact that the averages were first found for twenty-five judgments and later for the forty judgments. The differences between these two averages were found to be so slight as to make the average of the twenty-

five judgments practically as good a measure of relative worth of the several items as the average of forty judgments.

In the first main division the A. D. of 72 indicates that approximately 57 per cent of the judgments on this item were between 213 + 72 or between 141 and 285. The chances that any given score would vary from 213 by more than 72 would be less than even or about 3:4. Hence any individual score on this item not between these extremes, 141 and 285, should probably be called into question. A similar interpretation should be placed on the average deviations given on scores assigned to each main division.

(Concluded on Page 148)

TWO INTERESTING HIGH SCHOOL STADIA.

The growth of athletics and the development of the outdoor sports as an integral part of the physical education offered in high schools, has made it necessary to develop the athletic fields on entirely new lines. The solution of the problem in a number of cities has been in the direction of stadia in which provision is made for a large open field suited to all types of athletic contests and sports and to the accommodation of large numbers of spectators.

Two such recent projects are the Shaw stadium now under construction at East Cleveland, Ohio, and the Erie Academy High School stadium under erection at Erie, Pa.

The Erie Stadium.

The Erie Academy High School stadium is being financed by a committee including members of the Chamber of Commerce, the board of education and others and will involve a total expenditure of \$200,000. The stadium will be used not only by the high school but also by other civic and athletic organizations of the city and will be dedicated as a memorial to the soldiers of the late war.

The stadium is being located on a site north of the Academy high school, on ground which at one time was very uneven and which had a large ravine running diagonally through it. The topography of the ground enabled the engineers after considerable grading, to construct practically all of the lower seats for the spectators directly on the ground. The rear seats will be carried on an elevated structure of columns and beams of concrete and steel. The space beneath the elevated structure will be used as club rooms for home and visiting teams and will be provided with lockers, showers and toilets. Two large comfort stations for men and women will also be arranged.

The problem to be solved in connection with this stadium was the placing of the field and of the seating in such a way that a maximum capacity would be obtained without detracting in any way from the appearance of the school building, which is on a considerable elevation above the street to the north of the grounds.



ERIE ACADEMY HIGH SCHOOL STADIUM, ERIE, PA.

The view of the building will not be cut off from the two side streets, because the brick wall enclosing the field will be only six feet high and will be topped by an open ornamental iron fence.

It will be noted that the arrangement of the seating is such that a considerable concentration is at the north end of the field adjoining the high school building. This arrangement has been particularly considered, because of the possibility of open air pageants and theatricals, as well as concerts and school festivals. Arrangements will be made so that the field can be flooded in the winter time for skating.

The total seating capacity of the field will be 19,000 and the entire cost, including an elabor-

ate lighting system, walls and ornamental fences, club rooms and toilet facilities as described, will be about \$200,000.

The Shaw Stadium.

The Shaw stadium at East Cleveland, Ohio, is a strictly school and community recreation project and is being financed entirely by the East Cleveland board of education through the sale of bonds. It occupies space immediately to the rear of the Chambers grade school and adjoins the city public playground. The limited size of the site has made it possible to erect only two separate stands and to locate between them the athletic field, which is surrounded by a one-fifth mile running track.

Under the west stand is placed a large club room for the local athletic teams, including a room for lockers, showers and toilets. There is also an office for athletic officials and large comfort stations for men and women. Considerable open space is provided for play during inclement weather.

Under the east stand two separate club rooms have been provided for visiting teams. These are fully equipped and are in no way connected with the remaining facilities of the field, so that complete separation is possible for visiting organizations. Under these stands, which adjoin the Municipal Athletic Field, there are also public comfort stations for men and women, large dressing rooms, and check rooms in connection with the Municipal Open Air Swimming Pool.

The total seating capacity of the two stands is 10,400. The field is ample for baseball, football, track meets and other open air sports. The stands and the equipment will cost somewhat less than \$100,000.

Both the Shaw stadium and the Erie Academy stadium were designed and are being erected under the direction of the Osborn Engineering Company.

In both stadia, the engineers have been especially careful to design the stands, the exits and the entrances, so as to handle the crowds from the ticket offices to the seats, and from the seats to the exits, without confusion or congestion. Special care has been taken not only to make the stands safe and permanent, but also to avoid any possibility of crowding and panic. The

(Concluded on Page 148)



SHAW STADIUM, EAST CLEVELAND, OHIO.

A Graphical Representation of a School Reporting System

Part II

Samuel S. Dickey, Superintendent of Schools, Berea, Ohio.

In the previous article¹ which accompanied the Chart, the author endeavored to give a somewhat detailed explanation of the records and reports to be made under the headings of debt service, general control and fixed charges. As these are issues of vital interest to those who have the problems of our great educational system to solve, it seemed that too much could not be said concerning them. The remaining five principal headings, although of tremendous importance, need not be so fully described, as people interested in schools are generally familiar with their nature and content. Still, it is to be regretted that there are to be found school systems whose methods of handling their instructional service records, reports on their capital outlay, operation, maintenance and auxiliary agencies are indeed very antiquated. Such carelessly kept records are doomed, for each year finds more and more the taxpayers demanding to know where their money has been spent. Boards of education, one of the taxpayer's greatest spenders, are not going to be overlooked in this reckoning, so it is an absolute necessity that they keep their records in such a condition that any of "our nation of six graders" may comprehend. Too much information cannot be secured along these lines by those who are administering the affairs of a school system, whether it be a small township school or a large city unit.

The Chief Instructional Records.

The records of instructional service may be arranged under six headings, namely, those concerning (1) textbooks, (2) supervisors, (3) elementary principals, (4) high school principals, (5) teachers, and (6) supplies. Every school organization must keep some form of record about these corner stones of the educational system.

(1) The textbook records should consist of a list of texts authorized for use in the schools, along with a permanent record of all books purchased, delivered, lost, destroyed, and those ready for distribution. Another list should be kept according to grades or subjects in which they are used. A distribution record should be compiled for each individual school and from this the principal should be able to make a comprehensive annual inventory and summary to the central textbook store, which will greatly assist in making the annual purchases.

(2) Supervisors may think theirs is not a record keeping profession but they cannot go far without an outline of the material of instruction they wish to use in their special field, namely, "a course of study and plan book." They must also keep a definite time schedule and be ready at any time to report on their daily visitations. Now with the considerable discussion to be heard about teacher rating, here seems to be its proper place in the system of reports. From time to time bulletins must be issued carrying instructions concerning materials, methods used, results obtained and approved changes in plans. Then at the close of each semester and year, reports giving the aims and accomplishments of the work during the school term or year must be made to the superintendent to be used in the "annual summary."

Principals' Records and Reports.

(3) Elementary principals, and (4) high school principals, have somewhat similar rec-

ords to keep and reports to render, differing only in the issuing of a school handbook or manual which all secondary administrators find necessary. It might be interesting to note that many of our large grade schools are publishing a similar book of information at the opening of the school year. Pupils' registration cards should be carefully made out when the child enrolls and with the compulsory school attendance laws, too much stress cannot be put on the documentary substantiation of the date of birth. From these the office record cards should be made. Daily and monthly attendance reports should be received from the teacher along with reports on the pupils' performance and progress for any stated time. Principals should keep a record of the attendance of all their teachers and submit this in report form to the central financial office for use in compiling the payroll. A daily program of each teacher in the grades should be kept on file and in the secondary school each individual pupil's schedule should be so kept as to permit ready reference. Standard forms of requisitions should be available for each teacher to be used in ordering supplies. A scrapbook for the superintendent's and supervisor's bulletins, press clippings, programs and the like should be kept to a great advantage by all principals. Finally the keeping of a cumulative survey book will greatly assist the principal in diagnosing the problems of the school and enable the making of a very comprehensive monthly and annual report or summary to the superintendent.

The Chief Records of the Teacher.

(5) The various records and reports of the teacher, although at times they may seem burdensome, are very essential and every teacher should strive to keep them as well as possible. The register of attendance, scholarship and performance should be uniform throughout the school system. The use of admission, discharge and promotion cards, which in reality is a cumulative record of a pupil's school history, cannot be overlooked. Teachers in general realize the advantages of a well-kept "plan book" and carefully thought out "daily program," still it is lamentable to know there are many using pre-historic methods. "Transfer cards" and "transfer reports" should be used in sending information concerning a pupil who is leaving one school to attend another either within or without the same system. Proper use of these cards greatly facilitate the functioning of the attendance department. Where textbooks are furnished, a very complete register containing information concerning the books distributed and those in stock should be kept. At stated times the issuing of the "pupil's report card" causes the teacher considerable anxiety, yet it is one of the necessities of a school system. The keeping of an indexed file containing the official bulletins issued by the central office, and supervisors should be one of the teacher's duties, which if well attended to will avoid many an embarrassing situation. Finally monthly and annual reports should be rendered to the principal or superintendent to be embodied in the "annual summary."

(6) Instructional supplies like the textbooks must be officially listed and recorded according to the stock on hand, the grades or subjects in which they are used and how they are distributed to the various schools. Then from

each school should come the "principal's annual inventory and summary" with the amounts requisitioned for the next school year. From these inventories and summaries, the estimate for the annual purchases can be made and when they are officially adopted and properly included in the "budget record," the "standard supply quota" to be ordered is issued, which should appear in the "annual summary."

Recording Capital Outlay and Operation.

The records of capital outlay are few but of vast importance as they carry with them the history of the acquisition of all lands, buildings and equipment by the school district. Separate books should contain the records of all transactions pertaining to the securing of the land, the construction of the school buildings or additions, and the initial investment in equipping each school building. All deeds should be properly recorded, plans and specifications for buildings well kept and at stated intervals complete equipment inventories made. With these records carefully maintained, the difficulties of making an "annual summary" for the "budget record" will be eliminated.

The expense of operation of a school plant has always been enormous and will continue to be as long as we have educational institutions. Hence the keeping of accurate records is all the more essential in this department. First there should be a handbook of "rules and regulations" for the operation of the school plant. A book of instructions for the engineers, the janitors, and other caretakers of school property, covering services which they are expected to render. The city of Minneapolis possibly has made the greatest stride in this respect and today possesses one of the best systems of operation in the country. Employees as well as teachers should be rated as to their efficiency in the department. Record books should be kept by the janitors and custodians covering the various service systems, as the water, gas, fuel, and electricity used, personal services rendered by others and supplies needed. From these records daily, monthly and annual reports should be made to those in charge. Finally, the compiling of the "custodians' annual supply inventory report" should be emphasized, especially as it summarizes the year's transactions covering operation supplies and also embodies an inventory of supplies on hand and amounts requisitioned for the next school year. From this a "janitorial supply summary" may be made which will assist in making the annual purchases.

The Scope of Maintenance Records.

The records and reports connected with the maintenance of a school plant are many and sometimes it is doubtful as to where they rightfully belong. Under maintenance should be included all building repair work, supplies used in repairs, repairing or replacing of any equipment used in heating or lighting as well as scientific apparatus. In fact, any expenditure necessary to keep the grounds, buildings and equipment in their original condition. Any improvement which is more elaborate than the original, the amount by which the cost of the new exceeds that of the old should be recorded under "capital outlay." With this in mind many doubts may be settled and proper accounts recorded.

In properly maintaining a school plant, inspection is necessary and those carrying on

SCHOOL BOARD JOURNAL

this work should render reports of all repairs to be made. Requisitions requesting that the repair work be performed should next be issued. Then upon "estimate sheets" all job costs should be estimated so official authorization may be secured. The official request for bids should then be made by the board of education on a "tender for bids," showing the conditions under which bids must be submitted. In response to this request Bid Forms should be submitted along with the contractor's guarantee to do the work as specified. As the repairs of the year are made the inspectors should continue their work and from time to time issue a report. These reports enable records to be available of all repairs requested each year for each school in the system, the repairs made and the cumulative cost. These may be incorporated in the "annual budget record."

There are still reports to be issued and records to be kept which cannot be included under any of the above mentioned headings so they should be taken care of under "auxiliary agencies." Possibly in the future accounting experts will suggest other sub-divisions under which to record the numerous items that present themselves in the administering of the affairs of an educational organization. In the chart records of only two of these "auxiliary agencies" are considered, namely, the library records and health records.

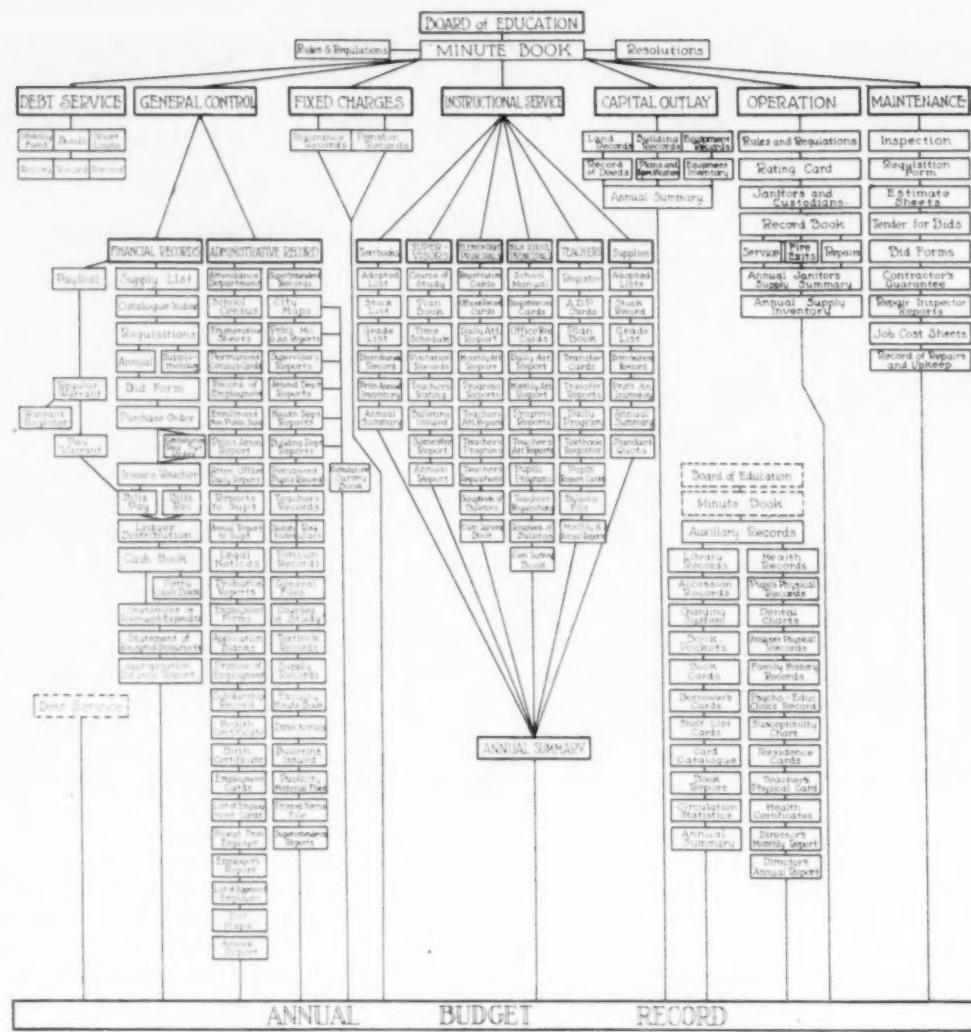
The Library Records.

The most important records of any school library are the "Accession records," those connected with the charging system, and the card catalog. Book pockets for the book cards and along with these the borrower's cards should be included in whatever charging system used. The "shelf list" cards which give a list of the books as they are arranged on the shelves should be very indispensable to any librarian. The "record of circulation" should be kept in a separate book especially ruled for the purpose. This should be kept up-to-date so that an "annual summary" may be easily made. It is this report that the board of education should receive and include when they are compiling their "annual budget record."

Health Accounting.

More and more every school system is finding the need of adequate health records, from the "pupil's physical record card" to the "teacher's physical record card," thereby securing ample knowledge of the child's welfare as well as the teacher's physical condition. These records should be kept from the date of the child's entry into the school until the day he leaves. Supplementing this main record should be a dental chart, an athletes' physical record, family history records, psycho-educational clinic's record, susceptibility chart for contagious diseases and residence cards for reference in time of locating a quarantine. Along with the "teacher's physical record card" should be included the official form of health certificate to be submitted by teachers when requested by the board of education. The health directors from the above records should render a "monthly and annual report" which should include the necessary facts regarding the work of the department in terms of cases handled and their dispositions during any school month or year. Recommendations for improvement of the work of the department should be incorporated in the yearly report. There are still many minor records and reports connected with the health department which are not included in the chart. These are only of temporary nature, hence will not be discussed.

From time to time other records and reports must be made which should be treated under auxiliary agencies. Of course, extreme care should be exercised in placing items in this miscellaneous department. All possible criteria



OUTLINE FOR A PROPOSED SCHOOL RECORD SYSTEM.

should be used in the determination of the location of all records so they may be credited to the proper phase of the educational organization. To do this intelligently, considerable study must be made of the various forms to be used. Possibly the best source of such information is the Strayer and Engelhardt School Record Series as designed for modern and progressive school systems. The chart accompanying this article was made in the light of this system of school records and reports, as it is felt duplication should be reduced to a minimum. Several publishers and dealers produced forms and blanks which conform to the principles of this uniform system. Whatever series may be selected uniformity should be kept in mind and only necessary reports and records should be required. Better yet, some energetic administrator might desire to design his own forms and make them applicable to his individual system, thereby avoiding still further duplication.

The cost of such a uniform system may at the first glance seem prohibitive but when investigated will prove its worth beyond price. For such a system once established and maintained from year to year, will prove the value of these records in the light of the minimum amount of labor necessary in locating desired information when needed. Not only will they prove beneficial to school people but the business man, the patron and the parent will be convinced that school systems may be as business-like and thoroughly efficient as the big corporations of today. Any superintendent can well afford to examine his records which he is now keeping and scrutinize the reports he is exacting from his teachers in the light of this discussion. For boards of education are becoming accustomed to making detailed studies of their school organizations and are requiring from their chief executives reports and records based on concrete facts. Personal judgment will no longer serve to increase a school budget

or pass a bond issue. As business men the superintendent must face the situation and handle the affairs of his school system in a thoroughly efficient manner. Then and only then will the legislators of this land see fit to grant the schools their financial dues. Every school man or woman can do much to hasten this day by demanding an accurate and uniform system of accounting in their own individual field of education. Eliminate all unnecessary reports and records, minimize all duplications and finally make simplicity the keynote of the entire reporting system.

The foregoing articles are by no means pioneers in this field of reporting as Dr. N. L. Engelhardt of Columbia University in his lectures during the past summer furnished the writer the inspiration for the development of the Chart. Dr. Engelhardt has been working in this field for some time and expects to publish in the future a detailed account of the workings of the system as depicted by the Chart. The writer is indeed greatly indebted to Dr. Engelhardt for the many suggestions which made the Chart possible.

THE AMERICAN SCHOOL TEXTBOOK.

There is probably no phase in the field of popular education, as exemplified in this country, which expresses the American spirit of enterprise and energy more completely than that which relates to the production of school textbooks. It not only demonstrates all the vision and constructive ability that impel the commerce and industry of today, but it also recognizes some of the traditions which are deemed basic by the modern executive, the first of which means service to a constituency.

The spirit of enterprise which has characterized American business and which has led to marvellous achievement, is not free, however, from certain drawbacks. Competition has its definite value in that it makes for a better article, a lower cost, or both. But, out of competition also grow overlappings, superfluous

(Concluded on Page 135)

The Handling of Absence and Tardiness in High Schools

O. F. Nixon, Principal East High School, Green Bay, Wis.

It is a matter of common observation that no school can be an efficient school that is not from an administrative point of view a well routinized school.

This article will deal with only one phase of administrative organization in the running and executing of a well-ordered high school of five hundred or more students, namely, the expeditious handling of the problem of absence and tardiness on the part of the students enrolled. Every principal of such a school must deal daily with this situation and the more efficiently he meets the issue the better grasp will he have on the school.

Our experience with absence and tardiness has taught us: (1) that it is both advisable and necessary to require a written excuse signed by the parent or guardian of every student who is absent or tardy; (2) that these excuses should be presented at the office and stamped either approved or unapproved; (3) that they should be filed in an index filing case in the office for a period of six weeks or more, to be referred to if necessary during that time and then mailed back to the parent or guardian who signed them, accompanied by a form letter of explanation; (4) that the student should be given a form blank properly filled out and stamped approved or unapproved as in the judgment of the office the particular case under consideration merits; (5) this printed form properly filled out is to be taken by the student as his or her passport to class or classes for that day, and must be presented immediately to the instructor in charge upon the student's entering or reentering class; (6) the instructor is to countersign the admit blank in the appropriate place; and (7) the admit form is to be left by the student with the last instructor countersigning it and collected by the clerk at the end of the period or day.

To do the above it was necessary among other things to change our system of excuse blanks, and, in order that we might avail ourselves of the types used in other high schools, it was decided that we obtain samples of these blanks. The investigation revealed that several high schools had no printed forms which were used for this purpose, while those forms which were used in others varied widely. After going over the various forms, which were used in the several schools submitting blanks, it was evident that not a single type of blank was applicable to do the work which we desired such a blank, or blanks, should do.

In order to meet the above situation adequately it was found that three different types of admit blanks were necessary: (1) One white in color which would be used in all cases where the absence or tardiness was approved; (2) a blue one in color which would be used in all cases where the absence or tardiness was unapproved; (3) a red, pink, or different, color from any one of the two already mentioned would be granted the student for the time being only who forgot to bring a written excuse explaining his or her case, if in the judgment of the office such was merited, on condition that said student present a written excuse at the office not later than the following day. This excuse would then be passed on and retained in the office, and a white or blue admit, stamped approved or unapproved given the student.

The three kinds of admit blanks referred to above follow and are self-explanatory:

EAST HIGH SCHOOL.

Date Time issued o'clock
Name has made satisfactory explanation at the office and is excused for absence { occurring tardiness }

Students must get signature of instructors whose classes have been missed and leave this with the last teacher signing it.
Signature of teacher: 1st 2nd 3rd 4th 5th 6th 7th

A SUCCESSFUL STUDENT: 1. Spends at least four evenings each week at home. 2. Has regular hours at home for study. 3. Is absent only when very necessary. 4. Has an interest in his or her work. 5. Is controlled by parents or guardians who show an interest in the work of their children and cooperate with the school.

O. F. NIXON, Principal.

EAST HIGH SCHOOL.

Date Time issued o'clock
Name has not made satisfactory explanation at the office and is not excused for absence { occurring tardiness }

Students must get signature of instructors whose classes have been missed and leave this with the last teacher signing it.
Signature of teacher: 1st 2nd 3rd 4th 5th 6th 7th

A SUCCESSFUL STUDENT: 1. Spends at least four evenings each week at home. 2. Has regular hours at home for study. 3. Is absent only when very necessary. 4. Has an interest in his or her work. 5. Is controlled by parents or guardians who show an interest in the work of their children and cooperate with the school.

O. F. NIXON, Principal.

"X-pend," meaning excuse pending.

EAST HIGH SCHOOL.

Date Time issued o'clock
Name is granted permission to classes today on condition that a written excuse explaining his or her absence is presented at the office not later than tomorrow. The written excuse must be signed by the parent or guardian and will be filed in the office.

Students must get signature of instructors whose classes have been missed and leave this with the last teacher signing it.

Signature of teacher: 1st 2nd 3rd 4th 5th 6th 7th

The teachers will please see that the student presents the proper admission blank from the office before permitting him or her to re-enter classes tomorrow.

O. F. NIXON, Principal.

The white colored admit, which is always stamped approved, means that the student is permitted to make up the work missed, and if satisfactorily done will be given full credit for same. On the other hand, the blue colored admit, which is always stamped unapproved, means that the student may make up the work missed if he or she desires but will not be given any credit for such work. Occasionally it will be necessary to impose and enforce further disciplinary measures upon the student in case the absence, etc., is unapproved, but inasmuch as this article is concerned with the types of admits employed rather than the disciplinary measures imposed, a discussion of the latter is here purposely omitted. However, any system of admits dealing with absence, tardiness, etc., such as here described should be augmented by frequent use of the telephone, personal interviews with parents, visits to the homes by the school attendance officer, the school nurse, and the written letter. Here in the East High School we have made an especial effort to get in touch with the parents by means of all the above methods, and find that they welcome an

opportunity to cooperate in every way possible, as it is easy for them to realize that students cannot do the most effective school work unless they are in school regularly, and that they be there on time. Furthermore, our records show conclusively that most of the failures which we do have in school work are due directly to irregular attendance and tardiness on the part of students.

The following illustrations are typical of the parental reactions on receiving the letters with the excuses enclosed:

Parent No. 1 writes as follows: "Your letter enclosing excuses which were presented by my son A. was received by me in due time.

"I am very glad to be advised in this matter and will be glad to cooperate with you in any way possible to secure a perfect attendance on the part of A. I am sure that most of the cases covered by the excuses could have been avoided. The excuses which I did issue were given because I understood that if they were not presented the student would be denied admittance to classes until an excuse was presented. I realize this is an important matter in discipline and wish to help in every way possible to prevent absence."

"I have told A. that in the future there will have to be a very strong reason for writing an excuse."

Parent No. 2 called on the telephone and said: "Mr. Nixon, I received your letter and the twelve excuses enclosed. I felt that I just must tell you that I did not know B. had been absent so much. Also that of the twelve excuses I only wrote three of them, the other nine were forged by him. I will certainly see that this does not occur again. Thank you, for I am so glad you sent the excuses to me."

Parent No. 3, a butcher by trade, telephoned saying: "I received your letter and the excuses. I see by the letter that C. is not doing good work in school. I have just finished 'cussing' the 'lights' out of him, and told him that I would give him just one more chance to make good. He will either 'cut out' this 'monkey business' and get his lessons, or I'll take him out of school and put him to work."

Parent No. 4 writes: "I want to thank you for your thoughtfulness in sending me your letter under date of January 23. I have taken a great deal of pleasure in reading it.

"I believe that you will get a reaction from this letter that will more than repay you for the amount of effort expended.

"For some time I have been endeavoring to visit East High, but due to frequent absences from the city it has been almost impossible. We are rather concerned with the progress D. is making, as she is very much discouraged at the present time, and I am wondering if the girl is really putting in the hard work that she should.

"I shall endeavor to visit you at the very first opportunity that presents itself."

Parent No. 5 called at the school bringing the letter and excuses that were enclosed. She said: "I am E. F.'s mother. I came to see you about these excuses. You see I did not know he had been absent from school. His father is in Texas and he has taken advantage of me thinking that he would not be apprehended. I wish you would get him in the office as I must have a definite understanding with him in regard to school." (May the writer add that E. F. has been in school regularly ever since.)

The advantages of the above practical method of handling absence and tardiness are: (1) students are made more conscious of their business obligations to the school and are thereby given a valuable training in discharging these obligations. (2) It trains students in right attitudes

(Concluded on Page 151)

Economy and Efficiency of the 60 Minute Period

V. H. Tibbetts, Superintendent of Schools, and Miss Georgiana Floeck,
Teacher of History, High School, Manhasset, N. Y.

This article is an attempt to tabulate the practical results of a preconceived idea as to the time which should be allowed for a recitation period in the high school. Our high school is comparatively young and happily furnishes a working laboratory for legitimate experimentation. Because of its youth we have no hide-bound traditions to follow and when it became evident to the principal after conferences with the various members of the faculty, that our regular period of 40 minutes was failing to give the desired results, we decided to make a change with the beginning of the present school year. It was easily possible to plan the period from a standpoint of organization so that it is now in such shape that we can judge somewhat from results, although we must have a still longer perspective before it can be assumed to be conclusive.

We shall enumerate the standards we have set up for our procedure and then tell how the actual results and practices check up with our standards.

The first standard which we set up is this: The organization of classroom administration should be such that it offers opportunity for supervised study, (1) which develops good habits of study, (2) which develops concentration, (3) which develops industry, (4) which develops honesty, (5) which develops power to apply oneself to new problems. No one will question, we think, that the longer period actually provides opportunity for study.

This longer period may be developed, first, by setting off in arbitrary division the amount of time to be spent each day on study, on recitation, on new work and new problems, on review, etc.; or it may be developed, secondly, by allowing each instructor, presuming, of course, that he is in sympathy with the plan, to be guided by the needs of the class and the occasion in determining each day where the emphasis should be given. This is the plan followed by us.

We have laid down a further principle which says that supervised study develops good habits of study. Having observed pupils work under the old plan and the new, we are convinced that pupils develop better habits when supervised. In a French class, for example, a pupil writing a translation based on a new point in grammar and a new vocabulary has a tendency to begin writing at once, forgetting the foreign idiom. He will hunt in the vocabulary where he will frequently find an unfamiliar form which he will use incorrectly. We have found that by setting aside a few minutes for oral preparation before allowing beginners to write, we have helped them to learn how to study correctly.

In the history class this point is further brought out by the fact that pupils who study the text under supervision, develop the habit of reading more carefully, keeping alert while reading and it enables them to fix the facts in their true proportion.

Supervised study develops concentration. Contrary to some who maintain that supervised study is detrimental to the development of concentration, we conclude from our experiment that it does quite the opposite. We have endeavored to establish in the minds of the pupils that it is a vital part of their task to concentrate on a certain piece of work until that work is accomplished thoroughly. In this we feel that we have been successful by arousing in them class consciousness.

Supervised study develops industry. Several months ago in the National Geographic Magazine in an article on "The War Between the Trees and the Elements" it was stated that the timber line was much higher where the forest was dense than where it was sparse. So it is with boys and girls. They work harder, faster and better when they work together. Work is contagious; Tom sitting next to John finds that he must keep eternally busy if he is to hold his own. At a recent faculty meeting all teachers were called upon to advance an opinion as to the merits of supervised study. They were unanimous in their belief that pupils are more industrious under the new plan.

Supervised study develops honesty in the pupil—honesty with himself, honesty with the teacher. Frequently when a student has received a wrong or a vague idea, it is too much trouble for him to clear the matter up for himself—perhaps he doesn't know how. The next day the recitation is about some other subject and the difficulty is forgotten. When supervised study was first introduced in our school, we found that pupils very seldom asked questions, not realizing their inadequacy to master the problem in hand. All our teachers agree that more questions are being asked now and that pupils are learning to be honest with themselves. Another common form of dishonesty is cheating in preparing one's lesson, copying and guessing at answers are ways the pupils use to deceive the teacher. When pupils prepare their assignment under supervision, it is impossible for them to cheat. Moreover, the teacher can understand peculiarities of the pupil—give him a fairer rating and thus remove the cause of dishonesty. Since supervised study has been introduced in our school, cheating or copying home work has been practically done away with and pupils frequently seek the aid of their instructors after school hours—a thing almost unheard of before.

Supervised study develops power to apply oneself to new problems. In the lengthened period the teacher has time to instruct the children in subject matter as well as in the way to attack an assigned problem. During the period of study, the teacher is there to answer any question regarding the nature of the problem and to help the pupil to think out his own solution. In algebra, for example, high school freshmen readily understand the type of problem but do not know how to apply the principles learned in class to the home work problems. After working under the guidance of the teacher for a few weeks the class has acquired this power; they grasp the work better than previous classes. In history the classes are able to prepare outlines of the subject or to use the text as a reference book in developing a given outline in a much more intelligent way than before. We feel that these gains are due to the fact that a fair percentage of school time is being devoted to the teaching how to study properly, how to attack a new problem intelligently.

We have stated a further principle: The longer school period provides the best possible conditions for study. Take, for example, the use of the school library. Under the old plan it was impossible, on account of lack of time, to use the library in conjunction with the recitation. The library work had to be assigned to be done by the pupils at their convenience. The enthusiasm aroused in the classroom had later cooled and unless the assignment was very

definite, confined to a very few books, the pupil would waste his time for want of specific direction and helpful guidance. Outside reading usually proved a failure. Under our present plan and with our library so situated that it is accessible to every class, it becomes a part of the daily classroom equipment. Instructors and their classes, especially those in English and history, are making full use of these facilities by spending the whole or a part of a recitation in the library according to the needs of the particular group.

Imagine an artist painting a portrait when his impression of the subject is fleeting and indistinct. So it is with the pupil who tries to clinch the points in a lesson without the proper illustrative material. It goes without saying that all progressive schools have maps, charts and the various other classroom devices so necessary to good teachers but how many of them have the opportunity to use these as they should be used? Sixty minute periods make it possible for the pupil to get the full value from these helps since he has them not only during the recitation period but while working out his assignment as well.

Science teachers especially are gratified with the good results in their classes, since the pupils study in the laboratory where they can find ample illustration and apparatus and specimens of the reading matter in the text. Our biology teacher claims that her class has never understood metamorphosis so well as now since they have specimens of the tadpole and frog always before them while studying this part of the subject. A great part of the time allotted to science can be spent in performing experiments, time that would otherwise be spent by the pupils in studying the textbook. The properties of many subjects can be studied by observation in the laboratory whereas this study formerly had to be limited to a few important elements and compounds. We could add indefinitely to the number of examples which show the advantages derived by the class studying in the laboratory.

THE SIOUX FALLS BUILDING PROGRAM.

The school building operations of Sioux Falls, S. Dak., have been quite unusual considering the size of the city. The school enrollment is 5,248 and rapidly increasing. The building operations just completed and now in progress aggregate something like \$974,000.

Early this year the school board completed a wing of a new high school, at a cost of \$336,000. The building is equipped with two high-pressure boilers, forced ventilating system with air washers, automatic temperature control and an electrically controlled clock system.

A new sixteen classroom school including gymnasium, manual training and domestic science rooms, known as the Emerson school, will be completed next September, at a cost of \$140,000. It will have three smokeless Keweenaw boilers and will also be equipped with forced ventilation, air washers and automatic temperature control.

The new Benjamin Franklin school, now in course of construction is of the two-story type, brick-and-tile construction with fourteen classrooms including gymnasium. It will be equipped the same as the Emerson school. The contract price is \$156,000 and building is to be ready next September.

A twenty classroom building, the Hawthorne, begun in March of this year is also to be completed by September. It will contain a gymnasium and modern equipment. Contract price \$176,000.

The new Whittier school started in June is to be completed early next year. The unit to be built now will contain thirteen classrooms. It is eventually to be enlarged to 23 rooms and to be used as a junior high school. The first unit will cost \$163,000.

All the new schools are provided with ample grounds which are to receive the attention of a landscape artist. Modern playground equipment is also to be provided.



EAST JUNIOR HIGH SCHOOL, WARREN, OHIO. R. J. Keich, Architect, Warren.

**THE JUNIOR HIGH SCHOOLS AT WARREN,
OHIO.**

Mr. R. J. Keich, Architect.

It is axiomatic that the successful school building shall include four elements of design and construction. The first of these is the adaptation of the plan and equipment to the educational needs of the teachers and children who will occupy the building. The second element is that of safety which implies not only good construction but also attention to those factors which make for good health and the physical well-being of children. The third element is that of economy and involves permanence of construction and reasonable cost. The fourth element invariably found in good school buildings is beauty, derived not only from grace and dignity in design but also from a careful choice of materials.

In the junior high schools at Warren, O., all the foregoing elements of good schoolhouse planning have been carefully taken into account by the architect, and the buildings which have been in use since September, 1922 have been found most satisfactory. The buildings are identical in plan, construction, and equipment. The design of the West Junior High School is classic and has Ionic details. That of the East Junior High School is of the Italian Renaissance, with details based on late Renaissance models.

Both buildings are of brick and concrete construction and are as nearly fireproof as it is possible to construct them without waste of funds.

The basements of the buildings contain only the gymnasium, locker and shower rooms, toilet and space for the physical instructors.

The ground floors which are sufficiently above the sites to give all the rooms full length windows, contain the special rooms for shops, mechanical drawing, etc. The rooms for automobile mechanics, woodworking, sheet metal work, mechanical drawing, electrical work, are all equipped with special apparatus and machinery ample for conducting the several courses. Separate outside entrances are provided for in-

roducing equipment and supplies. On the ground floor of each school there is also a room for hygienic work and two special classrooms, a bicycle room, locker rooms and space for the boilers and for fuel storage. The balcony of the gymnasium is on a level with the ground floor and is ample to hold a considerable audience during games and exercises.

On the first floor there are ten standard classrooms, two teachers' rest rooms, large administrative offices, a health center, a dental room and several storage rooms.

On the second floor there are two standard classrooms and a series of special rooms required under the organization of the junior high school work. The library, including a book room, a store room and a work room, are pleasantly located in the front of the building.

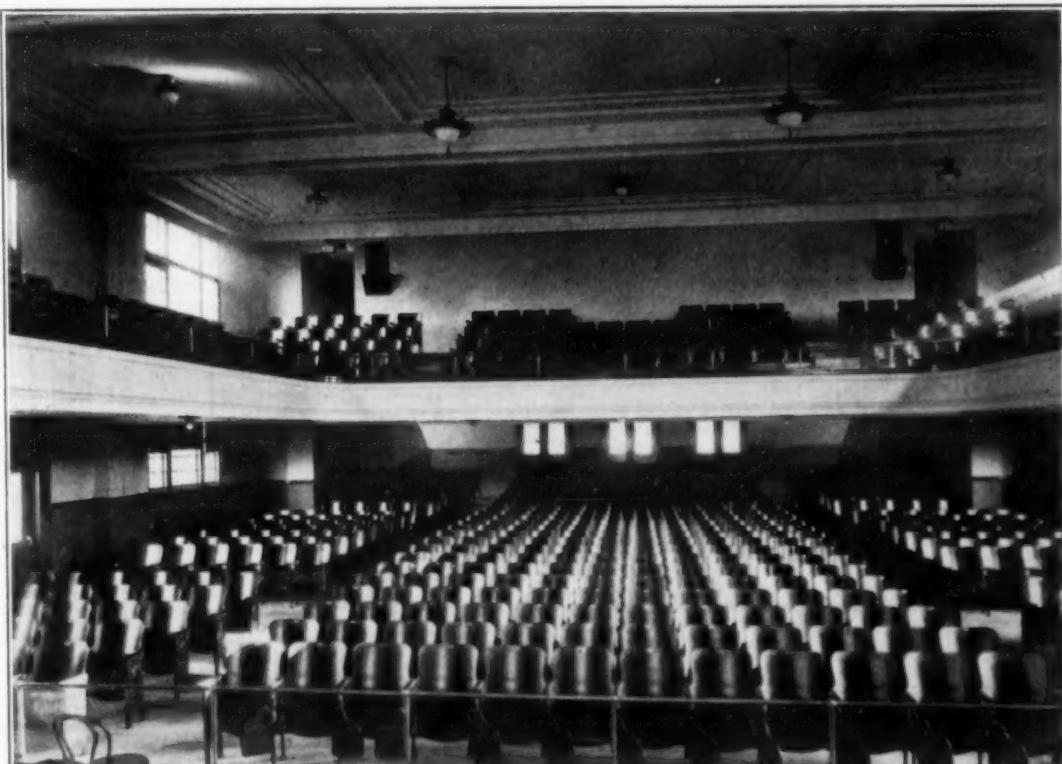
A large room slightly, in excess of the size of a classroom, has been provided for school organizations and for special work requiring larger than ordinary class groups.

The science department occupies a wing of the building and includes a science laboratory, a nature study room and a room for storing apparatus, etc.

The domestic science department includes a large cooking laboratory, a sewing and a fitting room.

The student body of the school includes a number of children who come from considerable distances and a cafeteria, seating 200 and fully equipped, is provided for them on the second floor.

One of the best features of the building is the auditorium which is on a level with the



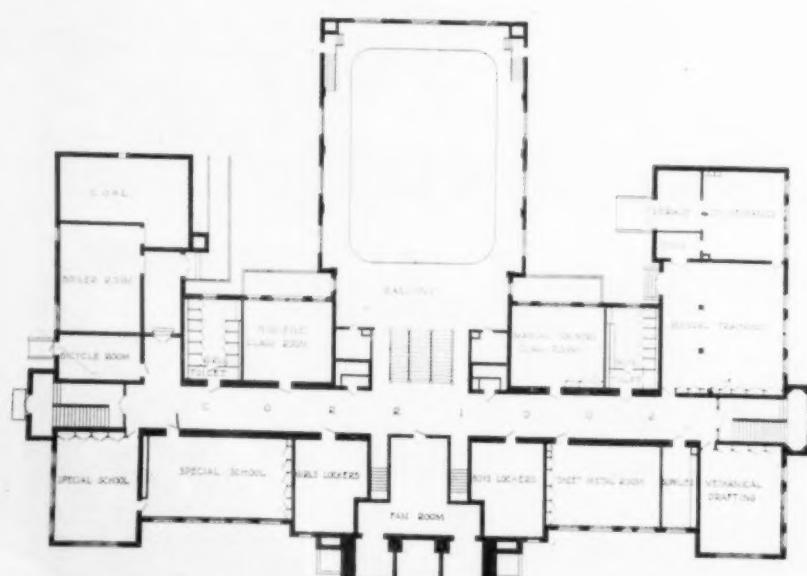
AUDITORIUM, EAST JUNIOR HIGH SCHOOL, WARREN, OHIO.



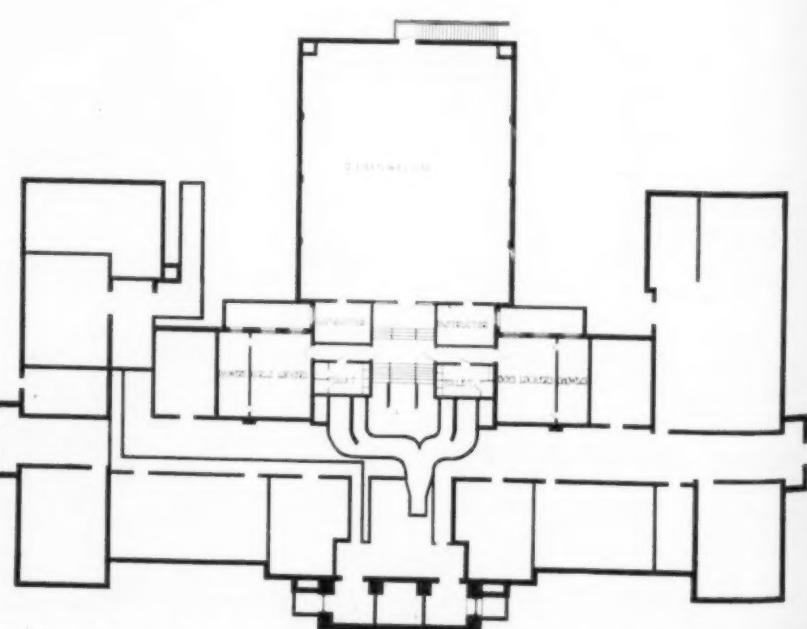
EAST JUNIOR HIGH SCHOOL, WARREN, OHIO. R. J. Keich, Architect, Warren.



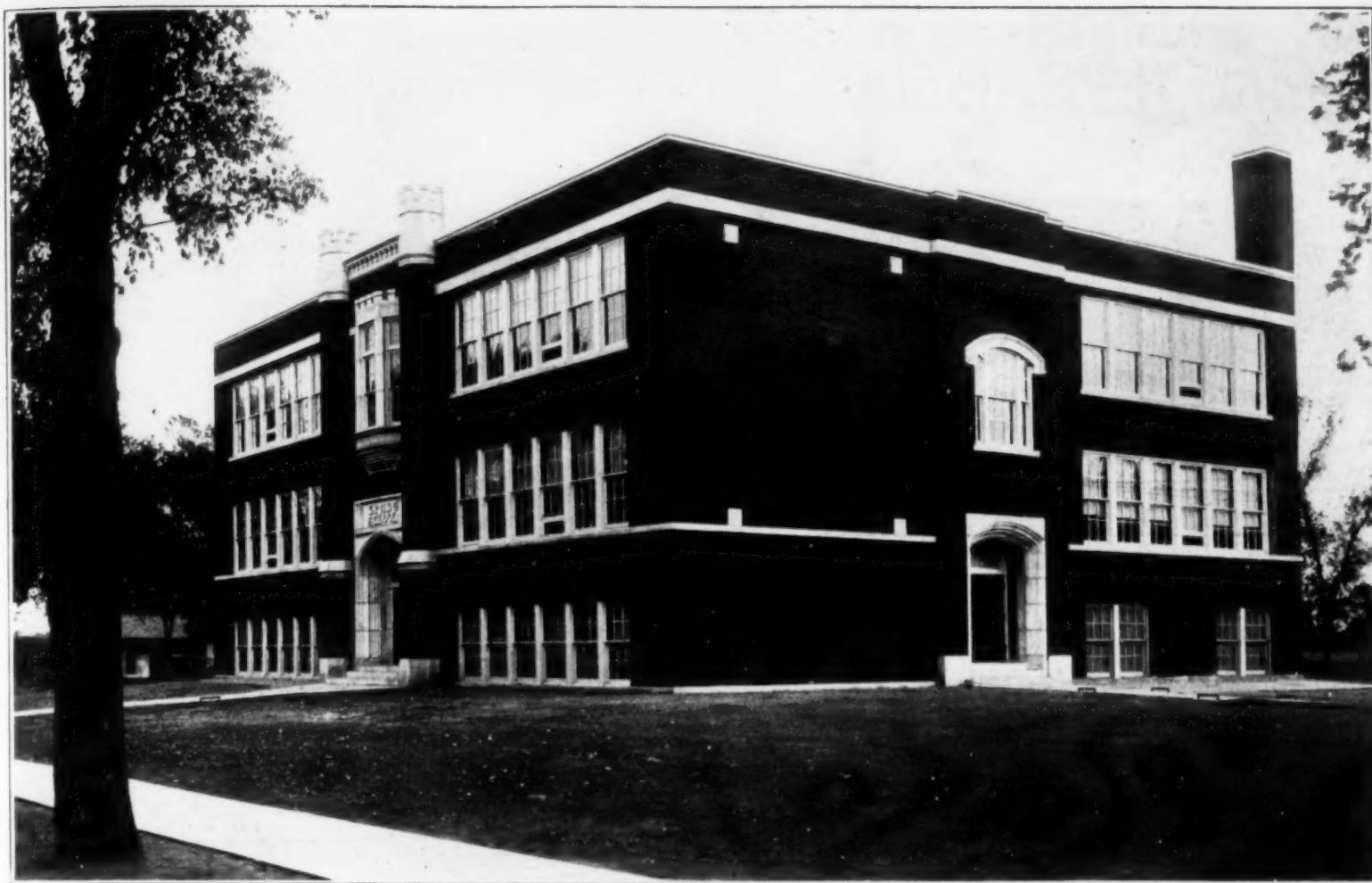
FIRST FLOOR PLAN OF EAST AND WEST JUNIOR HIGH SCHOOLS, WARREN, OHIO. SECOND FLOOR PLAN, EAST AND WEST JUNIOR HIGH SCHOOLS, WARREN, OHIO.



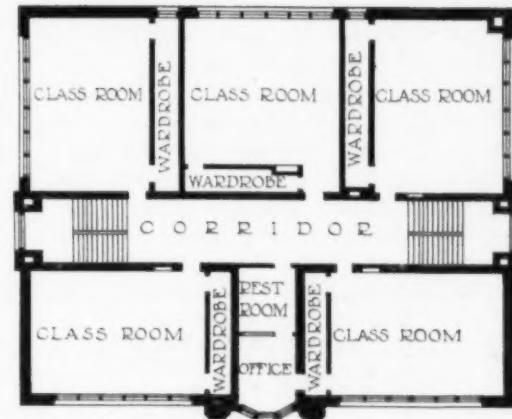
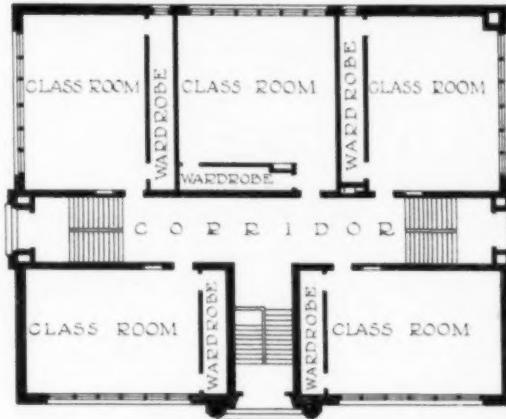
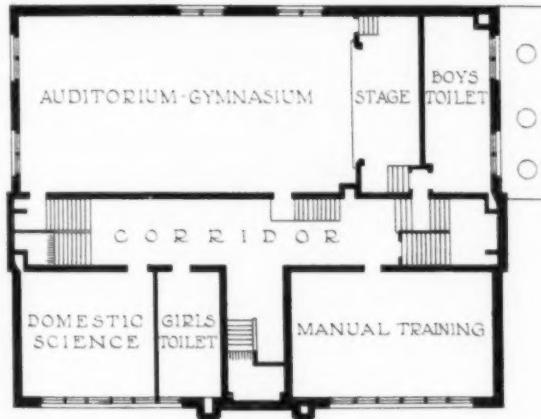
GROUND FLOOR PLAN OF EAST AND WEST HIGH SCHOOLS, WARREN, OHIO.
R. J. Keich, Architect, Warren.



BASEMENT PLAN OF EAST AND WEST JUNIOR HIGH SCHOOLS, WARREN, OHIO.



SOUTH GRADE SCHOOL, PAOLA, KANS.

FLOOR PLANS, SOUTH GRADE SCHOOL, PAOLA, KANS.
Thos. W. Williamson & Co., Architects, Topeka, Kans.**A GRADE SCHOOL.****Supt. A. M. McCullough, Paola, Kans.**

The Paola south grade school building was planned to meet a definite need for the part of the city it serves. The need of a building that would take up for the time increases in the educational need and yet fill the present demands was the problem given the architect.

The building is one of the two-story and basement three floor types. It is built of mat-faced brick and trimmed with earthenware stone. The halls and stairs are of terrazzo, the toilet floors of white tile and the classroom floors of hard pine. The building is fireproof throughout.

There are ten standard classrooms, a domestic arts hall, a manual training room and a combination auditorium and gymnasium. The building is constructed to meet the need of three hundred fifty children. The office and teachers' rest room are on the second floor over the main entrance. The office is connected to all floors and classrooms by a call bell or telephone system. Each classroom is provided with a pupils' cloak room and a closet for the teacher's supplies. The halls and stairs are

wide to make quick clearance of the building possible.

The building is equipped with the Kewanee boilers, Moline Univent heating and ventilating system and all are regulated by the Johnson Service System. The whole is automatically controlled for both heating and ventilating. Each room is a unit for heating and ventilating by itself. All rooms are unilaterally lighted. The building cost exclusive of equipment is \$214.57 per child, 25 cents per cubic foot or a total of \$75,000. The building is beyond the present needs but is so constructed that the later demands of the community can be met.

THE NORTH END JUNIOR HIGH SCHOOL.
S. E. Weber, Formerly Superintendent of Schools.

The North End Junior high school of Scranton, Pa., now in process of erection, is the first of a group of four junior high schools to be built in Scranton to relieve the present congestion in the two senior high schools and in the grade schools in every section of the city.

There is little difference of opinion concerning the undesirability of having pupils on part

first floor and which includes a balcony on a level with the second floor. The room has a total seating capacity of 800, a large stage, and an orchestra pit ample to seat a 24 boy orchestra. It is planned that the stage shall serve as a music room during regular class hours. The auditorium is equipped with a motion picture machine and stereopticon booth. The stage scenery is entirely fireproof.

The heating and ventilating system is of the plenum type, with fans located immediately under the front vestibule of the building. The arrangement is such that one fan can be operated to supply the gymnasium and auditorium and the other fan the classrooms.

The construction and equipment of the buildings are of the best. The floors are of concrete and terrazzo and large metal doors are provided as fire-stops at each of the stairways. Complete electric program clock systems are installed. The plumbing is of the best modern type and vacuum cleaners are provided.

The cost of each building, erected during 1922, was approximately \$475,000.

The architect was Mr. R. J. Keich, of Warren, Ohio.



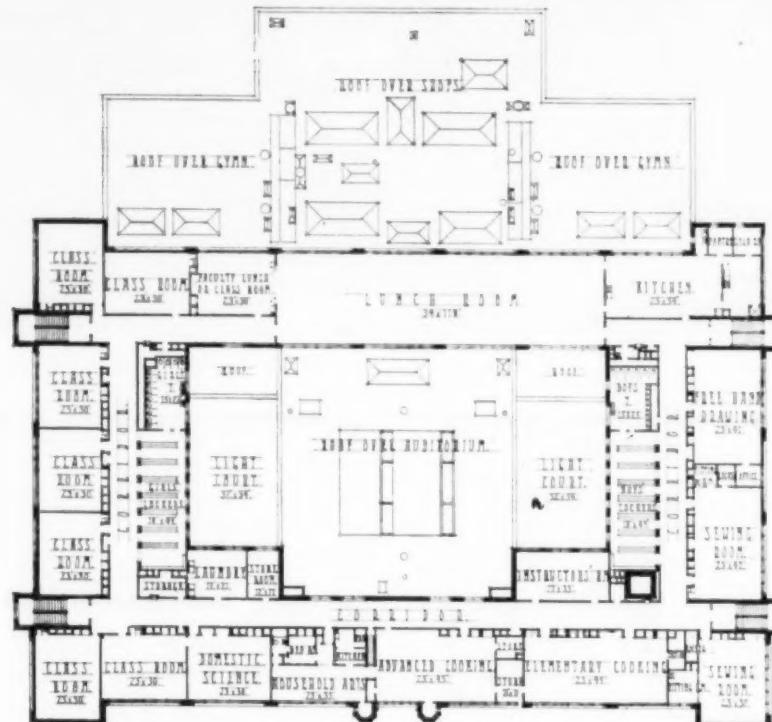
NORTH END JUNIOR HIGH SCHOOL, SCRANTON, PA.

time, taught in classes that are abnormally large, or housed in basement, hall, or portable rooms. Every one of the foregoing situations has been found in Scranton for some time. During the war the board of education was unable to undertake any large schoolbuilding enterprise. Since the building handicap has been removed it has taken steps to remedy its school-housing conditions.

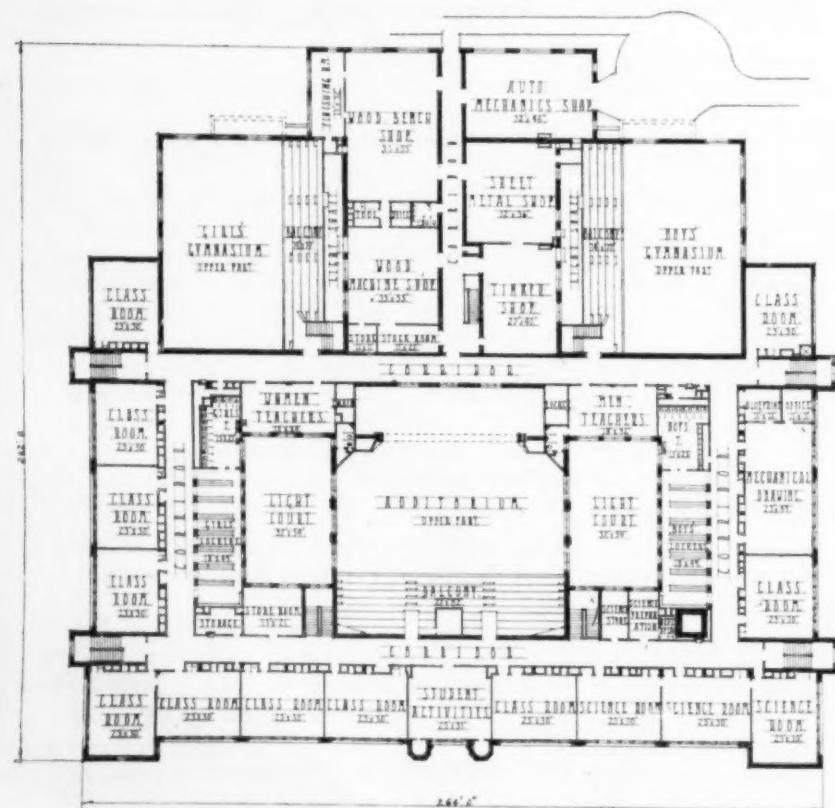
The educator usually thinks of the junior high school, 6-3-3 plan, as preferable to the 8-4 organization in that it bridges the gap between the elementary school and the high school, permits departmentalization, promotion by subject, greater variety of courses, the earlier introduction of a foreign language, and increases the holding power of the school.

The plans for the building have been drawn on the basis of making provision for 1200 pupils. The chances are that this building will be in time requisitioned to accommodate a considerably larger student body, especially in the event that the platoon system is put in operation. The building is designed to serve to the best advantage the educational needs of 1200 boys and girls in the North End of Scranton.

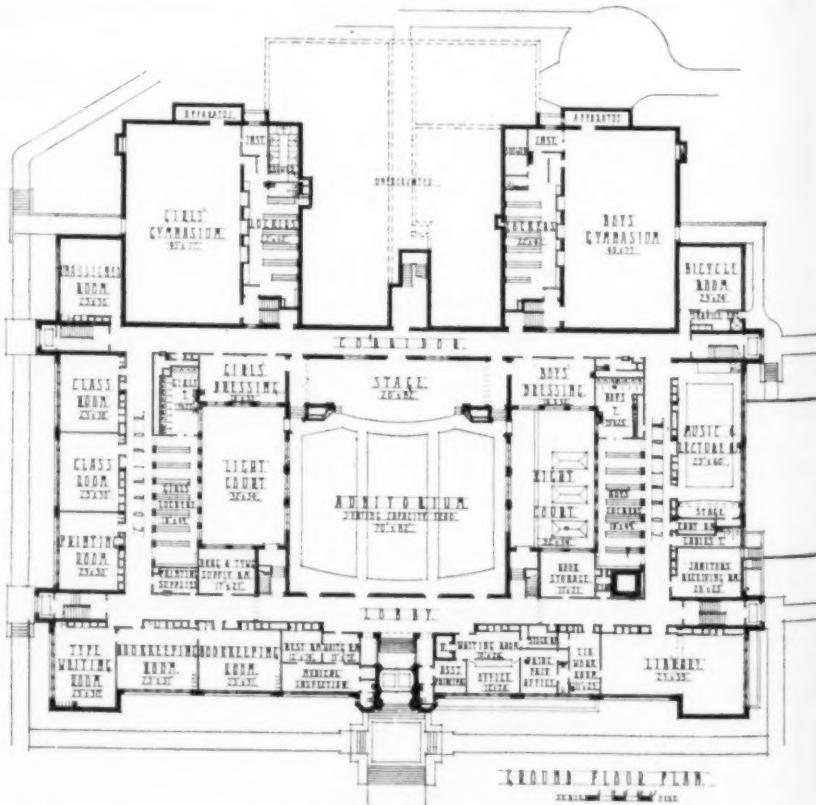
(Concluded on Page 139)



SECOND FLOOR PLAN, JUNIOR HIGH SCHOOL, SCRANTON, PA.



FIRST FLOOR PLAN, JUNIOR HIGH SCHOOL, SCRANTON, PA.



GROUND FLOOR PLAN, JUNIOR HIGH SCHOOL, SCRANTON, PA.
Gilbert N. Edson, Architect, Scranton, Pa.

Landscape Treatment of a School Building Site Theodore Roosevelt High School, Kent, Ohio

Louise Klein Miller, Landscape Architect.

Mr. W. A. Walls, Superintendent of Public Schools, Kent, Ohio, in the November issue of THE SCHOOL BOARD JOURNAL, gave a historical and comprehensive description of the development of a modern school plant. A school building planned to embody the last word in efficiency and economy, equipped to meet the demands of up-to-date educational methods, is one of a community's greatest assets.

According to statistics given, the Kent high school plant cost \$120,225.79 for site, grading, building, equipment and miscellaneous items. Judging from the majority of schools featured in THE SCHOOL BOARD JOURNAL and schools the length and breadth of the land, it seems to be the impression of most boards of education that they have performed their function after they have signed the last check for the contractor.

They fail to appreciate that a school to be the greatest civic significance must be of architectural good form and placed on a site of adequate proportions, located where it will be of the greatest service.

A modern school building generally is the best designed and most scientifically constructed building in the neighborhood of which it is a part. It is a radiating center for education. It becomes a constructive force in the upbuilding of the community and of distinctive influence in the improvement of physical conditions of the district.

The Kent high school has a commanding location—on rising ground at the head of an avenue bordered by fine old maple trees, forming a wonderful vista. When other sites, which had been considered inadequate, had been abandoned, a public spirited citizen offered to the board of education a tract of land in a restricted residential section of the town at cost and at the same time employed a landscape architect to make plans of property adjacent to the school site.

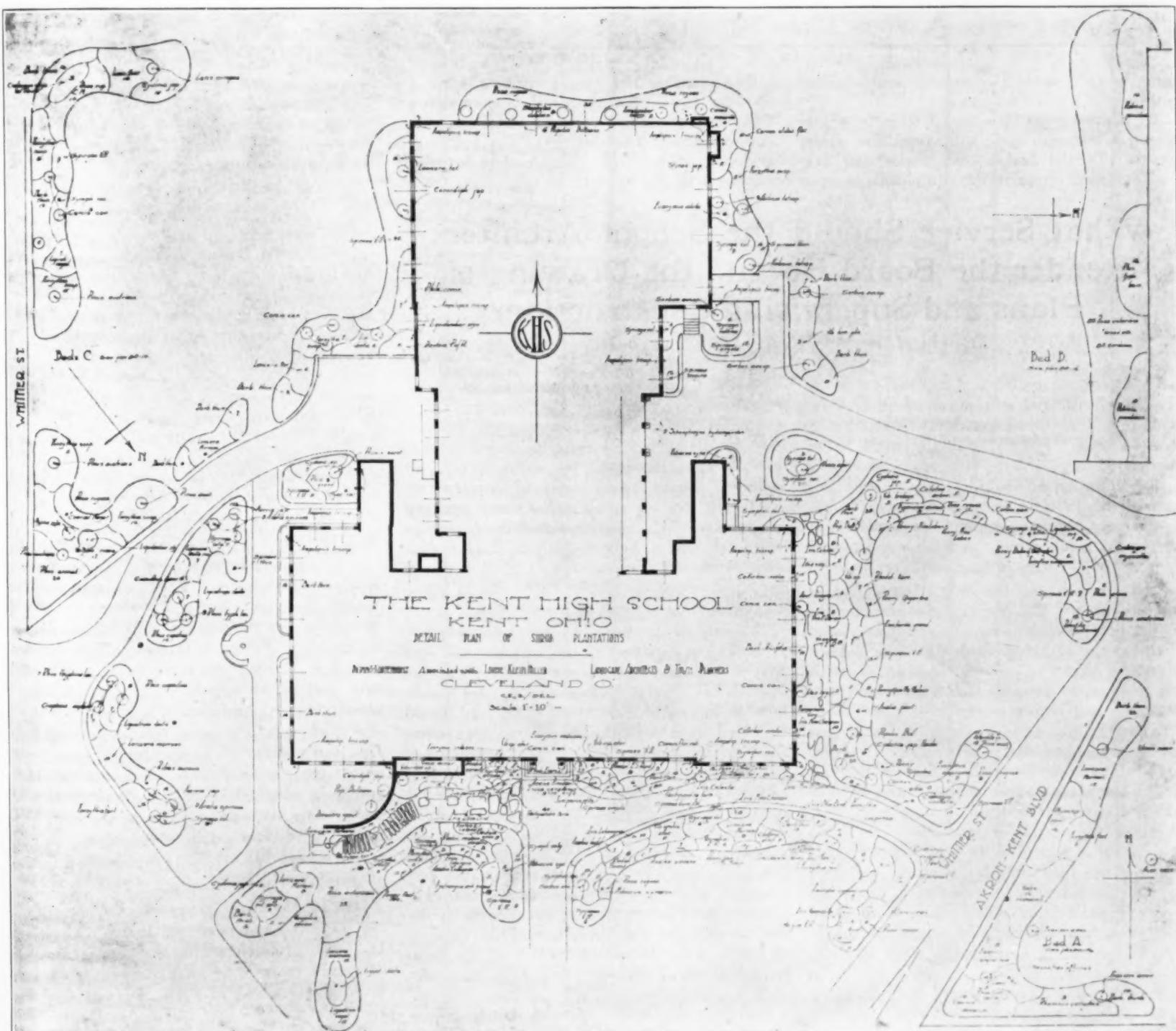
The school lot being of irregular shape and different levels made it possible to introduce some unique features and adapt some areas to several uses.

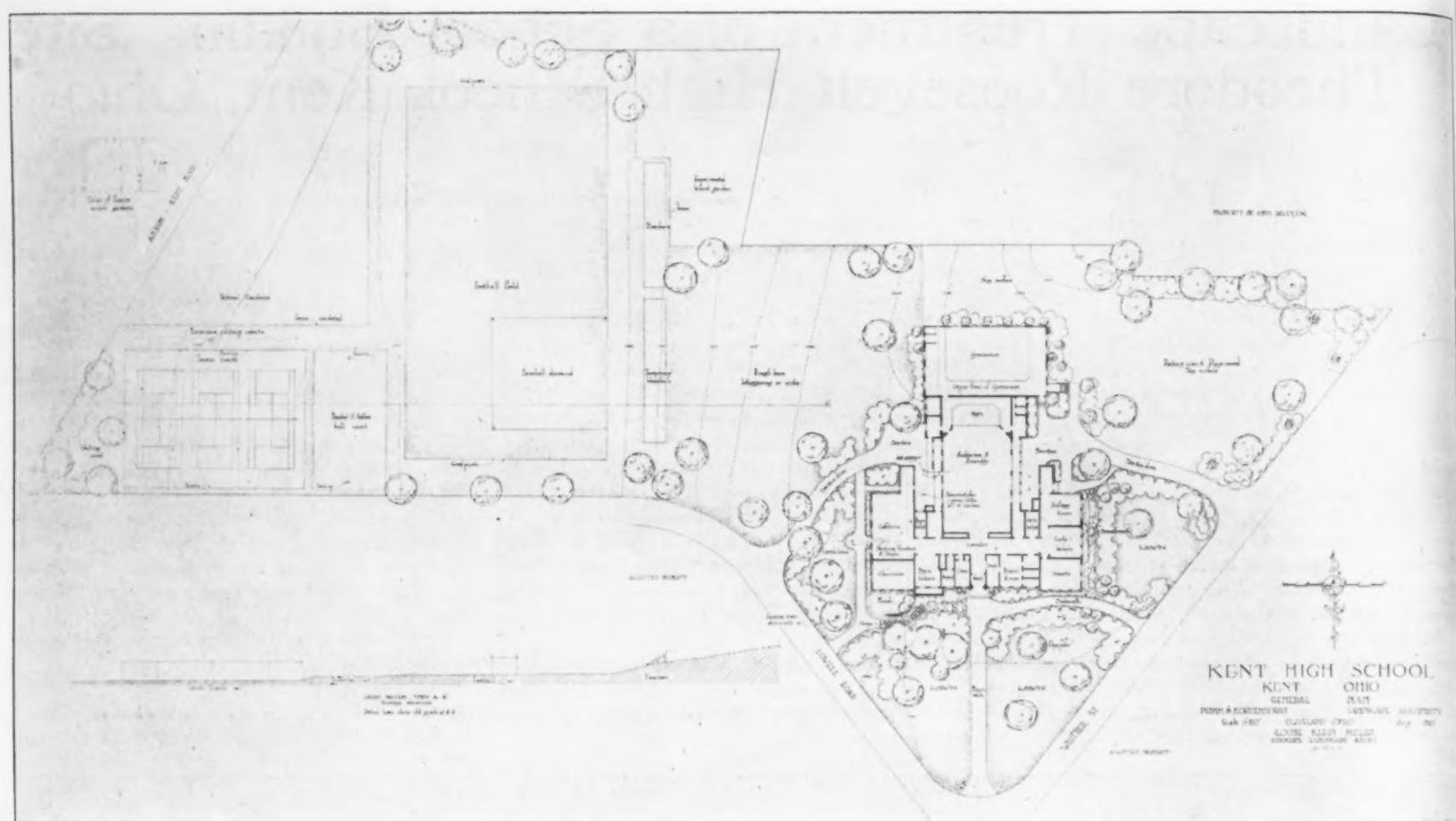
The front and side areas are purely decorative in treatment. The playground area adjacent to the auditorium is also to be used as a parking space to accommodate the general public, taking advantage of the educational and social features offered by the school.

The decorative planting is largely withdrawn from the building to prevent any possible shading of windows and an irregular broken flagstone walk between the shrubbery and building affords a "sneak walk" for convenience.

Because of difference of levels the "lunch lawn" is reached by irregular steps leading to the lower level, which affords a pleasant out-of-door eating place, a relief from the usual hot, close atmosphere of the cafeteria. The drinking fountain and seats under the shade of trees and in the seclusion of shrubbery, make a unique, convenient and comfortable feature adjacent to the cafeteria.

The playground, although irregular, is adequate. The sloping area affords a vantage ground for the bleachers overlooking the run-





ning track, baseball diamond and football gridiron.

By removing the bleachers during the winter season a toboggan slide will afford fine winter sports. Tennis, basket ball, quoits and vegetable garden comprise the equipment.

The planting list was carefully selected, including trees, shrubs, vines and perennials which will produce a pleasing effect during the entire season. The setting of the building is advantageous and the general effect is greatly enhanced by the appropriate planting.

engineering service necessary to design a building that is safe, sanitary, possible to warm and ventilate, properly lighted, that has satisfactory acoustic qualities—and, second, supervision in the same manner includes expert service such as surveying, cement testing, steel mill and shop inspection, soil testing, etc., etc.

The services of all experts, or specialists, required by the typical building of today, many of whom were unknown thirty years ago, should be included in the service undertaken by the architect so that the reasonable desires of the owners for satisfaction in their buildings may be realized. *But*, and here is a distinction which I would make, the statement of the problem and of the desires of the educator, the function or functions which the building is to fulfill, and the manner of their fulfillment should be made by the owner, the board of education, the superintendent of schools, or the educational specialists whose services have been shown to be essential to the proper solution of a building program.

To make an illustration of a school auditorium: It goes without statement that an auditorium is a room in which auditors may be so assembled that they may see and hear persons on a stage. Proper acoustic qualities must be provided to meet this perfectly obvious condition, and, if an acoustic expert must be employed, it is the architect's business to employ him and make his own charges accordingly. But, the capacity of the auditorium, whether or not it shall accommodate the entire school at one time, whether the stage shall be for dramatics or only for lecture purposes are matters to be decided by the board, or its officers, and are to be embodied in instructions for the guidance of the architect.

It is for the owner to say whether or not moving pictures shall be shown in the auditorium. It is the architect's business to see that the operator's room is fireproof, is ventilated, conveniently arranged and that all public regulations for the safety of the public are complied with.

What Service Should the School Architect Render the Board Beyond the Drawing of Plans and Supervising Construction?

Dwight H. Perkins, F. A. I. A., Chicago, Ill.

Architects are ready and willing to render any and all kinds of service for which they are paid, provided the service is indispensable to good building. They of necessity must be organizers of corps of experts of many kinds and as the minutiae of building and of education increase, the problem of school building design, construction, preservation, and use demands the services of many minds, and these must work in harmony and with mutual consideration.

Each specialist, in his own estimation, is a star—a soloist. To function in unison, the players in an orchestra require and must follow a leader—the architect modestly offers himself as such a leader of experts, and unless he is able to so serve, he lacks something which it is reasonable and proper to expect of him.

To enable him to meet changing conditions and growing burdens, the architect is ever ready to increase his rates; there is nothing fixed or permanent about six per cent—seven is just as logical and acceptance of a low fee is no excuse for partial or inadequate service or the shifting of responsibilities to others.

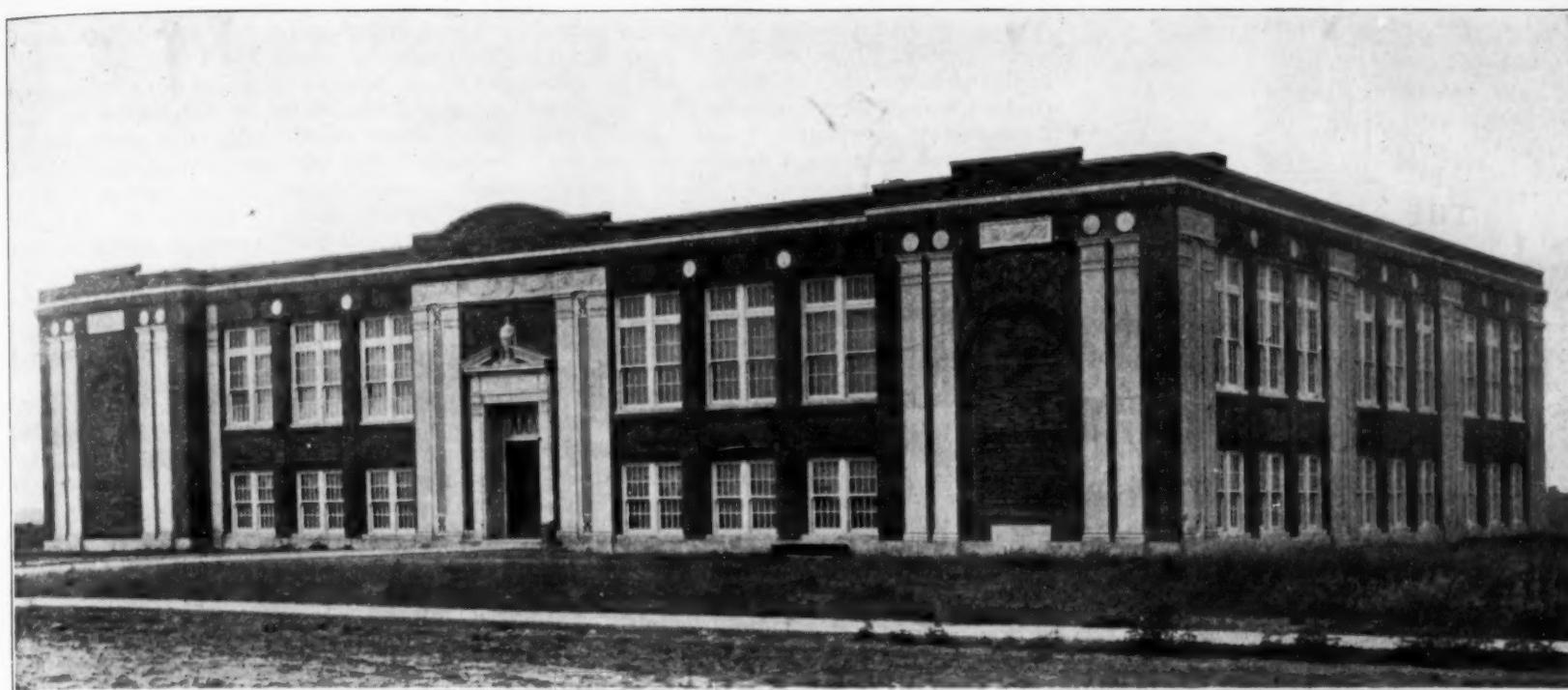
So that we may consider what the architect may be expected to do in addition to preparing plans and supervising construction, it would be well to state what is included within that heading and to distinguish between what is additional and what is not.

Planning—and I prefer to call it designing—should be so done that the resulting structure is perfectly adapted to its use, is safe, durable,

capable of expansion and beautiful. I cannot emphasize too strongly the requirement of beauty. The architect's function is "to solve the problems of utility in terms of beauty" and by beauty, by directness, by obvious fitness, absence of ostentation, honesty of construction, consistent use of materials, obvious strength, good proportion, interesting form and harmonious composition, he can and should perform a large share of the education and development of the character of the children who attend school in his building so long as it shall stand.

Supervision implies that the architect controls the construction of the building and sees that it conforms to the plans and specifications. It includes direction, explanation, and assistance to the contractors at all times. It should be based upon a realization of the high office filled by the builder and all of his craftsmen and laborers and includes not only recognition of meritorious service as a matter of justice but for the further purpose that efficient organizations of workmen may be created and their development encouraged. It includes business administration, the keeping of records, the certification of accounts, the assembly of material, the causing of cooperation of contractors for the various parts of the building and the conduct of affairs with the representatives of the owners, the board of education and its business officials.

Service under these two heads—first, designing, implies and includes all kinds of expert or



HIGH SCHOOL, LEWISTON, NEBR. Ellery Davis, Architect, Lincoln.

This is the line of argument that I should follow in reference to each portion of the general question, forming the title of this paper, as it is brought up.

However, there are services which the architect may naturally perform which are not included within those above defined as constituting his duty. The natural, broad visioned architect is a social creature rather than an individualist. He cannot help realizing the relation of his work to society, particularly when he is a builder of schools. He will choose to exert every legitimate influence upon his fellow citizens to cause them to wish to do their utmost toward supplying the buildings needed by public education. This because he is informed in detail in reference to a proposed school erection and the issue of bonds necessary to finance it, and as a citizen he desires to assist by imparting that knowledge to the voters. Of course, it is his duty to furnish to the board every kind of illustration, black and white plans and perspective views, lantern slides, statistical information, descriptive matter for the use of that board in any way that it may see fit—through public meetings, the newspapers, pamphlets or any other method—but his participation, strictly as an architect, would be properly limited to the furnishing of such material. His participation beyond that, in school bond campaigns, is or should be a matter of his own choice and should spring from his interests as a citizen rather than those which he possesses as an architect.

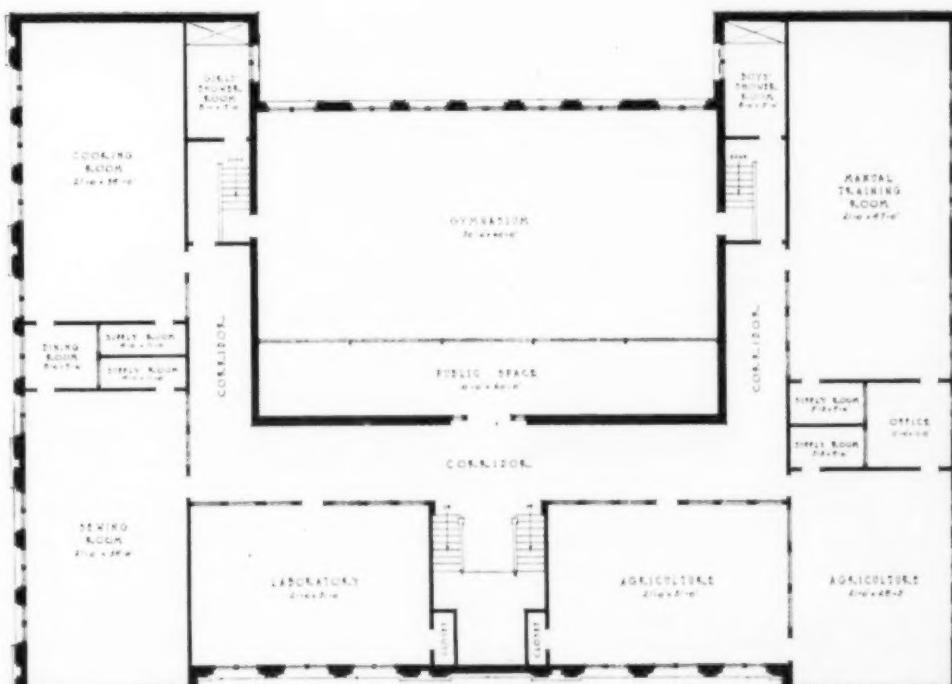
Educational town-surveying, the making of reports of existing school facilities embodying the recommendations for their modification or increase over a period of years as well as the detailed statement of building requirements, is not in my judgment the work of an architect. I have met a few, only a few, who think otherwise, but I for one dissent. I would no more presume to recommend to a board whether a junior high school should be located in a certain place or in some other, than I would attempt to advise a paint manufacturer on the relation of his grinders to his mixers, or to debate with a surgeon on whether his operating and his preparation rooms should be adjacent or remote.

We all recognize and admit the errors in location and arrangement which have been committed in the construction of school buildings.

(Conclude on Page 140)



MAIN FLOOR PLAN, SCHOOL, LEWISTON, NEBR.



BASEMENT PLAN, SCHOOL, LEWISTON, NEBR.



THE AMERICAN School Board Journal

WM. GEO. BRUCE { Editors
WM. C. BRUCE }

EDITORIAL

WHEN TO PURCHASE SCHOOL SUPPLIES AND EQUIPMENT.

In a well ordered household the purchase of supplies is not only made in accordance with current and future needs but also with some regard to market conditions, present and prospective prices, the deterioration of certain commodities, and the exigencies of delivery and service.

The school supply market, not unlike the markets for other commodities, has its exceptional conditions and peculiarities. In some respects it is a seasonal business. While some equipment finds its more convenient installation in seasons, general school supplies are currently used and consumed.

The tendency in the school field has been towards the use of a better quality of goods. The tawdry, toy, and tinsel paraphernalia of a former day has given way to the more practical, solid, and serviceable. The same mechanical ingenuity which has gone into a thousand devices of various use has found ample expression in the commodities constituting the supplies and equipment of the modern schoolhouse.

The school supply and equipment industry has in consequence assumed greater stability and solidity and in its relations with the school public has in recent years been adjusted to more fixed methods and more satisfactory sales conditions. The industry, nevertheless, is subject to production exigencies. A judicious manufacturer must regulate his output upon an estimated demand. Again, he must aim to make his deliveries in accordance with actual demand. The concentration of demand and delivery upon a restricted period causes congestion, delay and dissatisfaction.

Orders for school supplies and equipment should be placed early in the month of July rather than delayed until the fall opening of schools in September. This will enable the proper selection, packing and transportation of goods, and prompt delivery to their destination. As already intimated there are commodities which are subject to deterioration and which enter into daily use. These, wherever quantity and transportation conditions permit, can more advantageously be delivered monthly or quarterly, than in annual bulk shipments.

On the whole, there is good reason to hold that a timely anticipation of school needs and the placing of orders accordingly will result in better service. A congestion of orders can only lead to confusion and waste, whereas the more judicious placement of orders will lead to economies. These economies will eventually mean better production and distribution service, the advantages of which will be shared by the schools.

A STORMY CHAPTER IN THE HISTORY OF SCHOOL ADMINISTRATION.

The Chicago board of education has closed a chapter in its career which stands out as the most remarkable and at the same time the most

distressing in the history of American school administration. It covers several years of turmoil and contention, of charges and counter-charges, and of legal encounter that ran from the lowest to the highest courts. The climax was reached when some months ago the majority of the members of the board of education were condemned by a court of law to prison sentences and money fines.

The story is too long and too involved to warrant a recital at this time. A review of the same simply demonstrates that the efficacy of the appointive system depends solely upon the power that appoints. If that power chooses the right men and women, all is well. If it fails to do so, all is wrong.

The Chicago board of education is chosen by the mayor. The latter in formulating a board yielded to the dictates of the political workers that gave him office. The result was disastrous. Those in the school board defied not only the ordinary proprieties but defied laws itself in order to remain there. Efficiency gave way to temporary expediency. Self-respect yielded to self-interest.

While the school system of Chicago bore all the ills that an unruly board of education could inflict upon it, the chagrin caused extended far beyond the confines of the great mid-west metropolis. The larger communities may not always assume the leadership in progressive departure but they nevertheless command over a wide area the attention of the smaller ones. The larger cities are at least expected to set the example in high character of school board personnel and in doing things upon an approved basis. While they grapple with complex problems they are expected to demonstrate a high order of efficiency in solving them.

With the advent of a new mayor who has created a new board of education, the city of Chicago is expected to establish that confidence in the administration of her schools that the larger municipalities of this country have usually enjoyed.

THE CAMDEN SCHOOLHOUSE HORROR AND ITS LESSONS.

The human race recognizes its profoundest schoolmaster in that brief word—experience. The immediate thought after a calamity is in the direction of an avoidance of a repetition. We travel along thoughtlessly until something has happened to awaken caution and circumspection. And then we act in order to avoid a similar occurrence in the future.

The recent Camden, S. C., schoolhouse horror, whereby seventy-seven persons, pupils and parents, lost their lives, affords another lesson in the school of experience. Precious human lives have been sacrificed through a decrepit and ill-planned structure. Somebody unwisely took a chance with disastrous results. To locate the blame can be of little avail. To lecture the school authorities of Camden cannot bring back the lives of those who perished in the accident.

The blame must be placed upon a tendency, found in a greater or lesser degree everywhere, to hold that the possible is not always the probable, and to take a gambler's chance on coming through safely. There are thousands of schoolhouses in this country just as decrepit as was the Camden schoolhouse. It only requires a similar circumstance, namely, a crowded room, an outworn oil lamp and a weak staircase, to re-enact the tragedy in a thousand other places.

The Iroquois theater fire in Chicago, December 30, 1903, whereby 575 people lost their lives, prompted the asbestos stage curtains throughout the world, and the Collinwood schoolhouse fire at Cleveland, Ohio, on March 4, 1908, whereby 178 pupils and teachers were killed, evolved the handle-lock whereby a pressure from within would open a door outward. Accidents invent safety devices.

The Camden horror will mean closer attention to safe stairways and ample exits. There are many school buildings in this country with assembly halls located on the second or third floor. Where safety regulations either do not exist, or if they exist, are loosely administered, there is grave danger that in case of a stampede a loss of life is sure to follow. It is not always a defective oil lamp that causes a stampede, nor a weak staircase that causes a calamity. Any scare that leads to a mad rush for exits may tumble a mass of humanity over a stairway that is strongly built and yet cause a great loss of lives.

The Camden horror may well prompt school authorities to examine their older buildings and allow no crowds to occupy the upper floors unless the stairways are not only secure but wide enough to permit a hurried and safe exit.

Modern architecture has borne in mind the question of safety by locating assembly halls, as well as kindergarten rooms, on the ground floors with ample exits to the open air. The older school buildings must be rendered equally safe to the school public.

It is sincerely to be hoped that the silent graves of the Camden victims will serve as solemn warnings that other American school children, of this and succeeding generations, must be safeguarded against a similar fate. This is a sacred obligation that is incumbent upon every board of education in the land.

PROGRESS IN SCHOOL TAXATION AND SCHOOL SUPPORT.

With the momentum which the American schools had attained, their expansion in service and a better compensation for that service, together with the economic dislocation which the country experienced as a result of the war, a climax in the field of school administration was inevitable.

It meant a discrepancy between school support and school costs. Either progress must be checked, or more adequate support must be provided. The former was not deemed feasible, the latter was possible.

The country had by no means exhausted its tax ability and the educators were not inclined to curtail service. To ask for better support was easy. To secure that support was another matter. This involved not only a statement of pressing school needs, but a knowledge of the sources of school revenue.

In recognition of this fact the editor of the SCHOOL BOARD JOURNAL two years ago launched a series of articles which dealt with the principles of taxation. They proved the first step in the direction of the solution of a growing problem and a signal to the school men of the country that there was only one safe route of travel, if the schools were to be maintained upon high standards.

The quack remedies which were here and there espoused soon came to nought, and educational leaders of vision and vigor have now come forward to sound the keynote of a sound solution of the problem. Thus, it is gratifying to note that men of the Dr. George D. Strayer type have turned their attention to the study of taxation and are discussing the subject with an intelligent grasp of the fundamentals involved in the same.

It has become clearly evident that the school constituency of the nation must not only possess a conception of the educational needs of the day, but must also appreciate the sources that can and must provide for these needs. The schoolmaster may tell the legislator what he wants, but he must also be able to suggest to him how that want can be best supplied.

The sources of taxation are no mystery, and while any scheme of taxation at best is involved with many considerations, the distribution of the burden upon a basis of uniformity and

equity is quite possible. At the same time it is equally possible for the educator to grasp the fundamentals of taxation and to manifest a familiarity of the subject equal, or superior, to that of the legislator.

The educational leaders, therefore, in recognition of the fact that school taxation is at this period in the history of American school administration a most vital one, should instruct the school public in the fundamentals of the subject and point to a solution that is both feasible and equitable.

THE UNDERCURRENT AGAINST THE HIGH COST OF EDUCATION.

The Pritchett criticism on the tendencies in the administration of the public schools, their amplified studies and increasing cost, has prompted the newspaper editors everywhere to engage in comment upon it and to lean somewhat in favor of the same. Members of boards of education, too, here and there have given expression towards greater conservatism in public school expenditures.

It is well to know the extent to which editors and school board members caution the educators in their progressive expansion of the school service. They resent the manner in which schoolmasters refer to the cost of cosmetics and cigars and comparing the same with the cost of education.

"The men who do this (and it has been done recently in magazine articles by educators who sought to perpetuate their idea, contrary to the judgment of impartial and competent observers), furnish ammunition for the small-town educator, who stands before an audience of his fellow citizens, and attempts to justify the extravagance of the school system by quoting what he terms public extravagance in expenditure for smokes, cosmetics, etc., and, too frequently it happens that most of those who make up his audience are people who do not think. He knows this, and he struts the stage in ecstasy as outbursts of applause greet his remarks."

So speaks the editor of the *Courier News* of Plainfield, N. J., and continues his argument: "It is a very attractive way of putting an argument to assert that four billions were spent on these little trifles like smokes and cosmetics, while only one billion was spent on the schools. What did the one billion produce? That is the question for educators to answer. There is no one opposed to public education. The criticism of late has been regarding the kind of public education that is given."

Whatever may be the economic consideration involved in the expenditure of moneys for luxury as against those made for a vital necessity the comparison loses its force in the light of the real objective in hand, namely, the efficiency of the schools. We have frequently held in these columns that the exploitation of the country's waste expenditures on luxuries do not justify waste on necessities. In either case waste is unjustified.

Nor does this argue, as applied to the subject in hand, that the schools of the country have been extravagantly managed. It does argue, however, that a constant harping on the extravagance of the other fellow arouses the suspicion that you are defending some extravagances of your own.

There is no occasion to enter into a sweeping defense of school costs at this time. No one has as yet made out a good case on the prevalence of general extravagance in the administration of the American schools. No one placed in a commanding position and informed on the subject, has deemed it expedient to go on the defensive in a cause that needs no defense.

The adjustment of present situation in the school administrative field will not only be found in eliminating minor waste here and

there, but also in providing better support where this is now badly needed. But, more important than dealing with the existing unevenness in school finance is the effort to secure the maximum service out of every dollar expended for school purposes.

THE SUPPLY AND DEMAND FOR SCHOOL SUPERINTENDENTS.

The time of year is at hand when the contractual relations of superintendents and boards of education are either renewed or ended. Where the superintendent is satisfied with the conditions that attend his office and the board is satisfied with the service rendered, the relations will continue. Where rupture exists changes are likely to follow.

In recent years superintendency changes have not been entirely due to local disagreements between the factors concerned, but have in instances been prompted by a competitive spirit. A school board that had a good superintendent sought, what it believed it to be, a better one, and made a tempting salary offer to secure the desired man. The school board that had the alleged better man was exposed to the alternative of making a counter offer or lose that man.

A situation of this kind recently arose in an eastern city whose superintendent was sought, at an increased salary, by a neighboring city. A newspaper editor located in the first city made the following comment:

"Each city should demand a high standard of capability in its school superintendent. Each city should determine definitely what a just reward for the individual meeting such a standard should be and further determine whether it can or cannot afford the payment of such a reward. If it cannot afford expenditure in this sum it must lower its standard. Ability in any field commands a proper wage. But of course there is little of wisdom in permitting the municipal mind to get into a state of flutter every time a neighbor comes poaching. If we take care that our standard is preserved and that we pay sufficiently well to make its preservation possible we shall be well served regardless of individuals. We may lose an exceptional man now and then to a richer or more rapidly progressive community, but we shall not retrograde."

The school board that finds itself confronted with a competitive situation of this character is in a peculiar dilemma. To overbid the competitor constitutes an admission that it did not heretofore pay its superintendent a sufficient salary. Failure to do so forfeits the opportunity to retain the superintendent.

In cases of this kind the predilections of the superintendent must, after all, be reckoned with. The ethics of the situation forbid him to go on the auction block and yield to the highest bidder. At the same time, he owes to himself and his profession to accept a position that provides an attractive salary consideration and promises a wider field of service.

As far as the school board is concerned it should in the first place fix the superintendent's salary on a basis that is in keeping with that recognized by other progressive communities. While the compensation accorded to the office is not subject to schedule rates but is guided by the laws of supply and demand, it must also be adjusted in the light of the compensation granted to men of equal character and ability in other fields of activity.

HAS SCHOOL ADMINISTRATION BEEN AIDED BY THE AUTOMOBILE?

The advent of the automobile has proven a factor in school administrative service. The rural schools have been permanently benefited thereby. The centralized school, which has eliminated thousands of one-room schoolhouses and brought the graded school to the rural chil-

dren, has received its best impetus in the transportation afforded by the automobile bus.

The gasoline vehicle has enabled school administrators, in both city and country, to make many more frequent visits to the schools than this could have been done through other means of transportation. It has, therefore, saved valuable time and has undoubtedly added to the efficiency of the schools.

But, there is a difference between the use and the abuse of any article or agency. The automobile as a means of transportation, properly employed, is rendering a beneficent service to society. Improperly employed, it may prove a fatal curse as has, again and again, been demonstrated in many instances.

Thus, the modern vehicle which is an advantage in school administrative labors, may also in instances prove the contrary if unwisely employed. At San Antonio, Texas, the school authorities have found that the use of automobiles by pupils is doing harm to their mental and moral progress. Here is what the editor of the *San Antonio Express* writes:

"The board of education objects to the fact that so many parents—or any parents—allow children to drive automobiles to and from school, keeping the cars near the school meanwhile. The board's objection is quite justifiable and its attendant criticism is well founded; based only on facts. The car's presence near the school grounds is more or less demoralizing. The temptation to take a spin around the block at lunch period or study hour—rules or no rules—is almost irresistible, and its use for a clandestine tête-à-tête follows naturally."

"Parents should, and it is imperative that they do, cooperate with the school government at least to the extent of keeping the motor cars away from the pupils during school hours. Student bodies at Princeton, Cornell and several other splendid universities have found it necessary to abolish (of their own motion) such an abusive distraction from their studies. If this common-sense discipline—this square deal as between college and student—be required for the university man, how much more is it needed for the high school boy or girl! It is far cheaper in the long run, too, to send the pupils to school by street car—if ride they must—and, of course, far more democratic in public school conduct and relations."

The blame here must be lodged with the parents who fondle their offspring with over indulgence. It simply notes a new form of the chronic evil which prompts parents to provide their children with too much "spending money" and deck them with finery that shall render them preferred guests rather than students at the school.

School authorities must combat this new evil, wherever it may assert itself, with the same energy that they have in the past combated all the fool lavishments of misguided parents which tend to undermine the spirit of equality and democracy that must characterize the American public school.

CHATS DURING RECESS.

Some one has figured out that Jack Dempsey receives \$1,000,000 for three fights while a school teacher receives a measly \$1,500 for ten months work. This teaches just one lesson. Go into the brawler business and give Dempsey some competition.

In Indiana some one is raising the dickens about schools all the time. That's what you get for raising so many poets and educational highbrows, and not enough plain taxpayers.

"Most of the pedagogues are fossilized and cobwebbed" charges Dr. Reuben Post Halleck. Now the boards of education should bestir themselves in ascertaining whether any highbrows have slipped into their schools.

The Problem of the School Lunch

Hugh G. Rowell, M. D., New Bedford, Mass.

In studying a health problem, I found in one of the replies from important medical men of New England, the following statement from a specialist whose opinion must be given the utmost weight (and it is the more valuable because his practice covers children of a goodly number of school systems): "A very harmful factor in my practice I find to be the school lunch. It is too often improperly cooked; too often largely starch and almost always eaten in a hurry. For the last there are various reasons."

This statement led me to investigate further and to consult a principal whose school is popularly declared to have made a particular success in this field. There I found that the material used is the very best, the cooking is done as well as in a good home, and the variety excellent as far as it goes. The attempt is to give simply one hot dish, the pupils bringing other material as they choose. There I found a marked falling off in business as the year went on, especially since the region now has a number of soda fountains, supplying delicious milk drinks at a nominal cost. I was also informed that the milk drinks are most generally bought. In spring these had been provided at the school and with great success. The principal bought tickets for personal use every week, but in spite of excellent dishes and conditions, could not personally use the food, although no explanation for the feeling could be given.

Going again to a different and more ambitious type of school lunch I found that, as soon as it was not absolutely necessary to eat there, the pupils preferred to go elsewhere. Yet the menu was good, and on testing the food, I found it excellent.

Investigating at a well-known school where good apparatus had been installed and which the makers held up as a model lunch equipment, I found the menu varied, the business fair, but the chief boast seemed to be on the ability to handle a large number of pupils in a short period.

In other words, we find that a medical man recognizes dangers in the school lunch, school officials and teachers feel something is wrong, and the pupils prove it. But just what is the trouble and why?

Before continuing, what are the requirements of a successful lunch? Above all, sale-ability. Sale-ability, because if we can't have our lunch service used, we should discontinue it. No matter how good our theories may be regarding food, we must have food that is salable. This does not mean that we must make our food sweetmeats. But it does mean that the food must please and must continue to create an appetite.

Secondly, the food must be cheap in the sense of unusual value for a small sum of money, counting in cents; not, however, cheap in the sense of poor. This requires efficient management and full use of the buying power of a school system which is usually good.

Thirdly, the menu must have variety. Not the classic boarding house seven-day-rotation, but frequent changes even of standard articles, for bread itself or rolls become a too-familiar thing if the brand is not changed or else the recipe is not varied. A dish that tastes well one day becomes too well-known to the palate thereafter till many days have passed.

With variety we must have quality. It should mean few dishes per day, but these rarely repeated till considerable time has elapsed. The argument that this policy is more expensive is weak, for the difference at most is nominal and popularity is here essential to success.

The purpose of all school lunch installations must be to meet a recognized need. Usually it is the result of the location of the school which is a long distance from the homes and from other economical sources of food. The element of competition is not desirable and, as in many other things, a school system is not justified in competing with existing businesses, unless for very good reasons.

The physician's opinion quoted above, many of us will admit, is justified. The reason for the failure of most school lunches, it may be said, is the lack of qualified supervision. The common custom of turning such matters over to a contractor or to a person hired for the purpose and leaving the handling to them is at the bottom of the whole trouble. What is needed is a more active interest by the school executive who is best qualified to advise. It is not enough to have a dietitian draw up a week's or month's menus and turn them over to the cook or the manager of the school lunch. Let the official try out the food daily and he may be sure that the quality will improve. Again, the employee will be just as interested in getting results as the superintendent or dietitian and, if this official feels that anything goes, it probably will. You will also find your pupils will go to lunch—elsewhere. Once in a while get the honest impression of two or three pupils regarding the lunch and you will thereby secure more truths, if you go at it tactfully.

In other words, check up matters constantly. Do not think because someone makes up the lunch that it is not within the executive control of the school system. The lunch room is distinctly a part of the school and if the service is not satisfactory, the school executives must answer for it.

The best test I can suggest is to put yourself in the pupil's place and test your reactions on that basis. Consider what dishes would have appealed to you at their age and meet their desires so far as common sense will permit. It might not be a bad idea to have the pupils vote as to what they consider desirable dishes. Since they have to pay for them, you are really giving them real service and their interest and cooperation will result.

The excess of starchy foods can be eliminated to some extent by limiting their number and popularizing the protein dishes. Bread and butter, or sandwiches, are staples and are the cheapest, therefore most often bought. Simple puddings may often compete successfully with pastry, but pastry is more easily obtainable.

There is only one real reason for improper cooking and that is carelessness. If the equipment is inadequate, do not cease your efforts till you have the proper kind and amount. Careful supervision will soon put an end to improper preparation in any case.

The environment of the school lunch must be reasonably attractive and without odors. Too hurried eating may be the fault of allowing too few minutes in the school schedule. It is, however, just as likely that in many cases

PAY YOUR TAXES AND VISIT THE SCHOOLS.

You pay your taxes and comfortably leave the rest to the school board, the superintendent and teachers. Why not show some interest yourself in the schools?

You can visit some of them and see for yourself whether or not your own children are being adequately cared for, properly taught and wisely made into real American citizens. Your interest would encourage the teacher and perhaps give you an insight as to many of her problems.—News, Tuscaloosa, Alabama.



SARAH ELIZABETH RUSSUM,
Superintendent of Public Instruction,
Boise, Idaho.

Miss Russum, the new state superintendent for Idaho, entered upon her term of service January 1st. She is a native of Missouri and received her professional education in the Southwest Missouri Teachers' College and in the University of Idaho. She began her professional career as a grade teacher in Carthage, Mo., and was for some years a teacher of science in the Joplin High School. For some years she was head of the Science Department in the High School at Kellogg, Idaho. Miss Russum has been active in the teachers' association work, especially in the science division of the Inland Teachers' Association.

the pupil hurries through lunch in order to take up some other activity, perhaps sports, or an errand, or study for the next lesson. The writer has frequently done this even after school days were over.

The worst of the situation is that in the schools, often by example as well as by definite instruction, we are trying to teach the pupils to be healthy as well as wise. If we talk about careful selection of food and then furnish lunches carelessly prepared either as regards cooking or attractiveness, or variety, can we not expect such influence to extend into the home and thus defeat the purpose of our lessons? Again, if we encourage or permit bolting of food at this age, we should not be surprised if gastro-intestinal difficulties arise or even nutrition suffers because the habit may extend to other meals.

This article is not an arraignment of the scheme of school lunches. They are needed and form a very definite part of the essential equipment of many schools. At the same time we should consider them as one more educational factor and give them the same careful planning and supervision which we give academic and shop studies.

A DRAMATIC SCHOOL BOARD SESSION.

The recommendation to drop three teachers because they were poor in discipline, had insufficient knowledge of teaching technique, lacked in energy and general teaching ability, and were hampered by too many outside interests, compelled Superintendent George E. McCord of Springfield, Ohio, to face a contest before the school board and the general public.

His recommendations were challenged when the school board gave the teachers a public hearing attended by 500 citizens. The hearing was attended by catcalls and hisses, and cries of "sit down" and "shut up" were frequently heard. There was applause for the superintendent and for the defendant teachers.

The board of education finally sustained Superintendent McCord by a vote of three to five. The latter based his action upon the following statement:

"The greatest responsibility of a superintendent of schools is the selection and appointment of his corps of teachers. Upon assuming the responsibility of the administration of a school system, the superintendent must take considerable time to learn and judge his teaching corps. The time must come if there are those teachers who do not work for the very best interest of the children of the community, when they must not be reappointed."

Victor Records by European Artists

An enrichment in the Victor Catalog that offers excellent material for Courses in Music Appreciation.

Concertos

Symphonies Vocal and Instrumental Solos

Symphonic Poems

The following selections, chosen from larger lists of records by the artists represented, are especially useful in teaching Music Appreciation:

	ANSSEAU, FERNAND, Tenor	
74738	{ Roméo et Juliette—Ah, lève-toi soleil (Arise, Fair Sun) Gounod	{ 12-in. List price \$1.75
	BATTISTINI, MATTIA, Baritone	
87338	{ Vittoria, mio core! (Victorious is my Heart!) Carissimi	{ 10-in. List price \$1.25
	CHALIAPIN, FEODOR, Bass	
88657	{ In questa tomba oscura (Within the Tomb Forgotten) Beethoven	{ 12-in. List price \$1.75
	CHEMET, RENÉE, Violinist	
74751	{ Sonata in G Minor—Andante con moto Tartini	{ 12-in. List price \$1.75
66076	{ Sonata in G Minor—Presto non troppo Tartini	{ 10-in. List price \$1.25
	ARTHUR DE GREEF, Pianist, and ROYAL ALBERT HALL ORCHESTRA (Direction of SIR LANDON RONALD)	
55154	{ Concerto in A Minor—1st Movement, Part 1 Grieg	{ 12-in. List
	{ Concerto in A Minor—1st Movement, Part 2 Grieg	{ price \$1.50
55155	{ Concerto in A Minor—2d Movement, Part 3 Grieg	{ 12-in. List
	{ Concerto in A Minor—3d Movement, Part 4 Grieg	{ price \$1.50
55160	{ Second Concerto in G Minor—1st Movement, Part 1 Saint-Saëns	{ 12-in. List
	{ Second Concerto in G Minor—1st Movement, Part 2 Saint-Saëns	{ price \$1.50
55161	{ Second Concerto in G Minor—2d Movement, Part 3 Saint-Saëns	{ 12-in. List
	{ Second Concerto in G Minor—3d Movement, Part 4 Saint-Saëns	{ price \$1.50
	ROYAL ALBERT HALL ORCHESTRA (Direction of SIR LANDON RONALD)	
55169	{ L'Apprenti Sorcier (Sorcerer's Apprentice)—Part 1 Paul Dukas	{ 12-in. List
	{ L'Apprenti Sorcier (Sorcerer's Apprentice)—Part 2 Paul Dukas	{ price \$1.50
	SYMPHONY ORCHESTRA (Direction of ALBERT COATES)	
55165	{ Symphony in A Major, No. 7—Vivace, Part 1 Beethoven	{ 12-in. List
	{ Symphony in A Major, No. 7—Vivace, Part 2 Beethoven	{ price \$1.50
55166	{ Symphony in A Major, No. 7—Allegretto, Part 1 Beethoven	{ 12-in. List
	{ Symphony in A Major, No. 7—Allegretto, Part 2 Beethoven	{ price \$1.50
55174	{ Symphony in A Major, No. 7—Presto Beethoven	{ 12-in. List
	{ Symphony in A Major, No. 7—Allegro con brio Beethoven	{ price \$1.50
55170	{ Mother Goose Suite (Ma Mère l'Oye)—1st and 2nd Movements Ravel	{ 12-in. List
	{ Mother Goose Suite (Ma Mère l'Oye)—3d Movement Ravel	{ price \$1.50
55175	{ Mother Goose Suite (Ma Mère l'Oye)—4th Movement Ravel	{ 12-in. List
	{ Mother Goose Suite (Ma Mère l'Oye)—5th Movement Ravel	{ price \$1.50
55171	{ Die Meistersinger—Overture—Part 1 Wagner	{ 12-in. List
	{ Die Meistersinger—Overture—Part 2 Wagner	{ price \$1.50
	SYMPHONY ORCHESTRA (Direction of PERCY PITTS)	
55168	{ Siegfried—Forest Murmurs, Part 1 Wagner	{ 12-in. List
	{ Siegfried—Forest Murmurs, Part 2 Wagner	{ price \$1.50
	MOISÉIVITCH, BENNO, Pianist	
55156	{ Perpetuum Mobile (Perpetual Motion) Weber	{ 12-in. List
	{ Waltz in G Flat Major Chopin	{ price \$1.50
	SMIRNÓV, DMITRI, Tenor	
74741	{ Pescatori di Perle—Mi par d'udir ancora Bizet	{ 12-in. List
	{ (Pearl Fishers—I Hear as in a Dream) Bizet	{ price \$1.75
	THIBAUD, JACQUES, Violinist	
66064	{ Sérénité (Serenity) Vieuxtemps	{ 10-in. List
		{ price \$1.25



For further information consult any dealer in
Victor products or

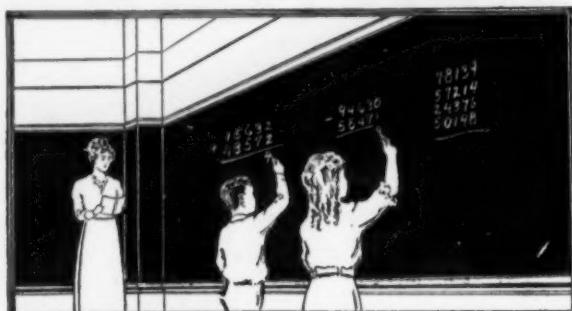
Educational Department

Victor Talking Machine Company, Camden, New Jersey

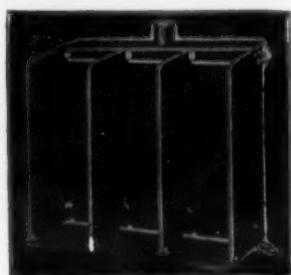
ALBION QUARRY NATURAL SLATE BLACKBOARDS

Are Black and stay Black. The only PERFECT writing surface.

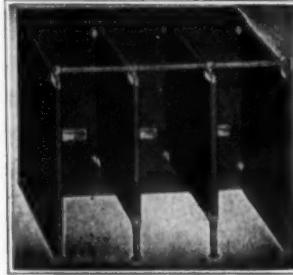
Sample and Booklet sent on request.



The "KEENAN KIND" Sanitary Slate Fixtures provide perfect Sanitation and Ventilation.



B-11½ S—Urinal



B-26—Closet

Large Illustrated Catalog for the asking

KEENAN STRUCTURAL SLATE COMPANY, Inc.

First National Bank Bldg.,

BANGOR, PA.

The Mastery of Nature vs. the Mastery of Man

In many things man has improved on Nature. In some things he has found it impossible to beat her. Human ingenuity has never been able to produce diamonds, nor Blackboards that can match our

NATURAL SLATE BLACKBOARDS

in real economy, in smoothness of writing surface, in ease of legibility at great distance, in freedom from the necessity of repairs or reblocking.

All of which is set forth in a trouble-and-dollar-saving booklet on

"How to Judge, Specify and Install Blackboards."
It's free. Send for it.

PENN'A. STRUCTURAL SLATE CO.

Worth Building

Easton, Pa.



Schools and School Districts.

The proceedings for the establishment or alteration of school districts being purely statutory, the statutes should be substantially complied with, though they are not so strictly construed that unimportant mistakes will defeat the purpose.—State v. Callahan, 191 N. W. 974, Wis.

The corporate existence of a consolidated school district can only be questioned by the state in a direct proceeding instituted for that purpose, and a bill in equity by one of the districts embraced in the consolidated district to cancel and annul the organization of the consolidated district as illegally organized cannot be maintained.—School Dist. No. 35 v. School District No. 32, 2447 S. W. 232, Mo. App.

Under the Iowa acts of the 37th general assembly, c. 432, providing that county superintendent, on the filing of a petition for consolidated school district shall fix time for hearing not less than five nor more than fifteen days thereafter, where the superintendent fixed such time and caused notice to be published he acquired jurisdiction, and such jurisdiction was not lost by his omission to give notice of the time for the hearing of an appeal to one filing objections, and he had authority to correct such error by fixing a time for a new hearing before him, though after the time prescribed by the statute.—State v. Consolidated Independent School Dist. of Buck Creek, Delaware County, 192 N. W. 5, Ia.

Under the Wisconsin statutes of 1921, § 40.01, authorizing town boards of supervisors, village boards of trustees and city councils to alter district boundaries, and to create, consolidate, or dissolve districts, so as to charge added or outlying territory with the maintenance of the high school, without submitting the question to the voters in the added territory: sections 40.15

and 40.51 being inapplicable, as relating to different districts, and sections 40.43 and 40.44 relating solely to the establishment of such district, being insufficient to require by implication an election to authorize an alteration.—State v. Callahan, 191 N. W. 974, Wis. .

School District Government.

Ordinarily courts will not interfere with the exercise of the discretion of executive officers of school districts in performing their functions, but will intervene if it appears their action was based on misconception of law, or ignorance through lack of inquiry, or was the result of arbitrary will or caprice or improper influences or in violation of law.—Hibbs v. Arensberg, 119 A. 727, Pa.

The act of 1919 (Crawford and Moses' Digest, 8873 et seq.), providing for the election of county superintendents of schools and county boards of education, does not violate the Arkansas constitution, art. 19, § 9, prohibiting the creation of permanent state offices not expressly provided for by the Arkansas constitution.—Little River County Board of Education v. Ashdown Special School Dist., 247 S. W. 70, Ark.

The act of 1919 (Crawford and Moses' Digest, § 8873 et seq.), providing for the payment of salaries of county superintendents of schools from the common school fund, is held not unconstitutional because part of the salary is paid out of school funds which go to the common schools in cities and incorporated towns, which are expressly excepted from the supervision of the county board of education by section 8873, the county superintendent having general supervision of schools in such cities and towns by establishing uniform grades and by other ways tending to promote the common school system.—Little River County Board of Education v. Ashdown Special School Dist., 247 S. W. 70, Ark.

Under the Kentucky constitution, § 155 and 183, providing that sections 145-154, inclusive, shall not apply to the election of school trustees and other school district elections, the provision of section 148 that no officer of any city, town, or county, or of any subdivision thereof shall be elected in the same year in which members of the House of Representatives of the United States are elected, does not apply to the election

of school district trustees, either because such elections under section 183 are exclusively under legislative control, and not included in the franchise and election articles of the constitution, or because such officers are not officers of a city, town, or county or of any subdivision thereof within the meaning of section 148, so that the Kentucky statutes § 3587a9, providing for the election of such trustees in 1922 is valid.—Hoskins v. Ramsey, 247 S. W. 371 Ky.

School District Property.

Where the specifications for a school building limited the cost of the face brick to be used, the directors could later decide to use a little more expensive brick without reletting the contract and without assuming personal liability for the differences in cost.—Hibbs v. Arensberg, 119 A. 727, Pa.

In the specifications for a school building, an item requiring the face brick to be thoroughly vitrified, wire-cut, face brick of a color to be selected by the architect and the board, to cost not more than \$34 per thousand, was sufficient to enable an intelligent bid to be made and to sustain the contract which preserved the right of inspection and reject materials.—Hibbs v. Arensberg, 119 A. 727, Pa.

A departure from the contract for the construction of a school building authorized by the directors must be based on their honest, reasonable and intelligent judgment and must not so vary from the original plan or be of such importance as to constitute a new undertaking, where fairness could only be reached through competitive bidding.—Hibbs v. Arensberg, 119 A. 727, Pa.

The architect for a new school building should be required to furnish enough copies of the specifications for all prospective bidders who apply therefor a sufficient time before the time for bidding to permit the copies to be furnished since a limitation of the number of the copies would enable a combination of bidders to secure all of them and prevent competition from any outside bidders.—Hibbs v. Arensberg, 119 A. 727, Pa.

An opinion by a school board, at its first meeting after bids for a new building were opened, that all the bids were too high, does

(Concluded on Page 73)



Light grayish buff unglazed
terra cotta used for exterior
ornamental trim

ENTRANCE OF ST. LUKES SCHOOL
Whitestone, Long Island

J. S. MAHER
Architect

FOR EXTERIOR ENRICHMENT

No material lends itself better to the silent message of architectural beauty which is part of the mission of the modern school building than Terra Cotta.

Our illustrated brochure "Present Day Schools" tells what Terra Cotta is and shows the effective uses of Terra Cotta which have been made in leading educational buildings throughout the country and treats of the salient points

of good school design by a recognized authority.

A copy of this brochure and a list of manufacturers of Terra Cotta will be sent to all school officials, architects and others concerned in the erection of school buildings and other educational institutions.

Address National Terra Cotta Society,
19 West 44th Street, New York City

TERRA COTTA

Permanent Beautiful Profitable



Kensington High School. Equipped with National Paper Products.

Protect Your Children and Save Money

"Public Service" Towels and "No-Waste" Toilet Tissue give the protection of prophylactic cleanliness. They are made—not from old waste papers, but from fresh clean spruce wood only. Hundreds of schools use them, thereby safeguarding health.

The low net cost of these products results in definite money savings for taxpayers.

"Public Service" Towels are of such drying quality that fewer are needed. They are the "rub-don't-blot" towel. Handsome fixtures are made in white and olive enamel, in regular or junior sizes, for schools.

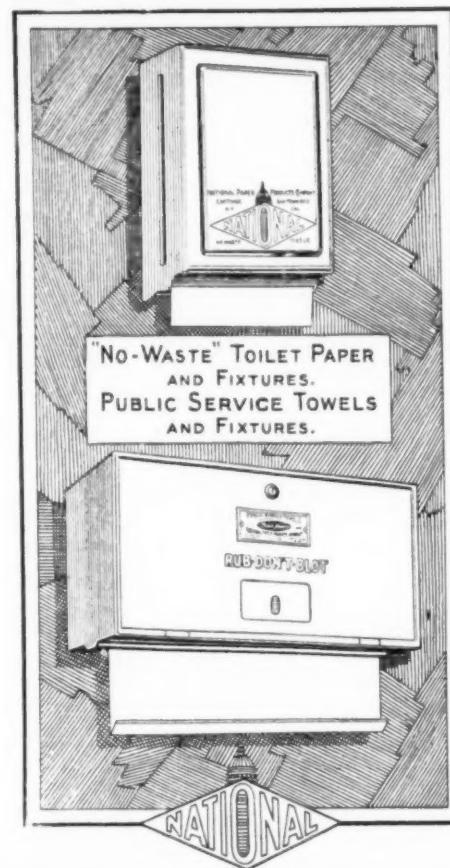
"No-Waste" Toilet Tissue Fixtures, dispensing one double sheet of "No-Waste" Tissue at a time, so largely prevent waste that 20% to 30% is saved in toilet paper bills as compared with roll paper. Fixtures furnished free to schools, in white, olive or nickel.

*Write at once for sample fixtures, towels,
and sheets.*

NATIONAL PAPER PRODUCTS CO.

33 Furnace St., Carthage, N. Y.

*World's largest manufacturers of Towels.
Representatives everywhere.*



From Coast to Coast, Economically Managed Schools are Using—



~"No-Waste" Toilet Tissue

PublicService

Towels



MEDART Steel Lockers *in* Gray Finish

Medart Steel Lockers in Gray Finish are being widely used in schools and colleges because they harmonize with the color tone of the rooms or corridors in which they are placed—reflect the light—add to the air of cheer and comfort—and the 2-coat baked enamel gray finish is just as hard and durable as any other color.

There are many other features in design, construction and utility that commend Medart Lockers to your favorable consideration. Helpful literature and data sent on request.

FRED MEDART MFG. CO. — St. Louis, Mo., Potomac & De Kalb Sts.

(Concluded from Page 70)
not prevent the board from accepting one of the bids at a subsequent meeting.—Hibbs v. Arensberg, 119 A. 727, Pa.

Since the law contemplates the combined judgment of all the directors of a school district in the awarding of a contract, a notice of the meeting at which the bids were to be considered should be given to all directors, and all should be present if possible; but, if the notice had been given and a majority were present, they could act without the presence of the others.—Hibbs v. Arensberg, 119 A. 727, Pa.

The board of directors of a school district could not let a contract for the construction of a new building to the fourth lowest bidder without making any investigation of the responsibility of the three lower bidders, under the Pennsylvania school code, § 617, of the Pennsylvania act of July 10, 1919 (P. L. 889; Pennsylvania statutes of 1920, § 4842,) directing the contract to be let to the lowest responsible bidder, though that section does not require a letting to the lowest bidder if in the discretion of the board he is not deemed responsible.—Hibbs v. Arensberg, 119 A. 727, Pa.

The fact that a contractor for the erection of a building gave his bond for performance does not eliminate the requirement that the bidder receiving the contract shall be responsible.—Hibbs v. Arensberg, 119 A. 727, Pa.

A bond given by a school contractor, which by its terms ran to the school board, and which required the contractor to perform its contract and promptly to make payment of the sums due to all persons for labor and materials, does not entitle a material man to sue the surety thereon for the value of materials furnished for the building, even though he relied on the bond in furnishing them.—B. F. Sturtevant Co. v. Fidelity & Deposit Co. of Maryland, 285 F. 367, U. S. C. C. A. N. Y.

School District Taxation.

Under the Mississippi laws of 1916, c. 194 (Hemingway's code, c. 4004), providing that the election to be held in a consolidated school district to determine whether the bonds of such district shall issue shall be held at the schoolhouse of the district, or, if there is no schoolhouse, the election shall be held at a convenient

place designated by the trustees of the school, where there was no schoolhouse of the consolidated district, and the trustees selected as a convenient place for holding the election a schoolhouse of one of the districts of which the consolidated district was composed, but kept no minutes of their action in that respect, simply reporting it to the board of supervisors and the election commissioners, who acted in accordance therewith, it is held that such designation of the place to hold the election by the trustees was valid.—Carter v. Board of Supervisors of Chickasaw County, 95 So. 306, Miss.

Where a bond election was ordered held at a schoolhouse in the district, naming it, being situated in a village of the same name, which schoolhouse had been destroyed by fire, but in its place the same school was being taught in another house in the same village only a short distance from the site of the one destroyed, it was valid because under the circumstances such house was in fact the schoolhouse named as the place of holding said election.—Carter v. Board of Supervisors of Chickasaw County, 95 So. 306, Miss.

Teachers.

It was no justification for discharging a teacher that he permitted the schoolhouse to become dirty, where his uncontradicted testimony shows that it became dirty and littered with papers, etc., when the inhabitants of the district held box suppers and other entertainments therein at night without his knowledge or consent, and that he always cleaned it as soon as possible thereafter.—Ottinger v. School Dist. No. 25 of Jackson County, 247 S. W. 789, Ark.

That a teacher chewed tobacco and spit the juice through the screen windows of the school does not justify his discharge in the application of the rule that his contract implies he is competent, and his immoral conduct will not impair his services in properly instructing and advancing the pupils.—Ottinger v. School Dist. No. 25 of Jackson County, 247 S. W. 789, Ark.

Pupils.

The statute in force July 1, 1919 (Illinois laws of 1919, p. 914), prohibiting fraternities, sororities, or secret societies, in public schools

of the state, is a valid exercise of legislative powers for the promotion of the best interests of the schools and discipline and the good order therein.—Sutton v. Board of Education of City of Springfield, 138 N. E. 131, Ill.

LAW AND LEGISLATION.

—The court of appeals at Buffalo, N. Y., has decided that the local school board cannot mandamus the city council to issue \$3,500,000 worth of bonds to finance the building of intermediate trade schools. The decision establishes the principle that an appointed school board cannot force an elected city council to provide money for a building program which the council does not deem wise.

—The legislative recommendation made in Illinois of placing a special tax on coal in aid of the state school fund is opposed upon the argument that the coal mine operators would be placed at a disadvantage in competing with the coal mines of other states.

—The Wisconsin legislature has abolished the state board of education. This leaves the universities and normal schools in charge of separate boards and the common schools under the direction of the state superintendent.

—In compliance with legislative action State Superintendent Marrs of Texas is instructed to ignore the five year textbook contract entered into last fall and the attorney general is ordered to bring suits invalidating the contract.

—The legislature of Tennessee at its session just closed has enacted the following school laws:—Abolished the position of attendance officer and provides that the compulsory attendance law be enforced through the sheriff and constables. Election of the county superintendent by the people for the term of four years at the August election. In some counties the superintendent prosecutes non-attendance before magistrates and receives a fee of \$5 for each conviction to be paid out of the school fund. All teachers who have reached the age of sixty-five are pensioned at fifty percent of current salary, not to exceed \$300 a year. Pension boards consist of county superintendent, two county board members and two teachers. The cost of administration is not to exceed one-tenth mill on all property. County boards of



Conservatory of Music, Northfield, Minn.
Sound-proofed with Cabot's Quilt.
Patton, Holmes & Flint, Architects, Chicago.

Sound Proof Music Rooms

All school-rooms need sound-proof floors and partitions, but music rooms most of all. The above building was sound-proofed with

CABOT'S QUILT

and the directors report the usual "perfect results."

Sound-proof, Decay-proof, Vermin-proof and Fire-resistant—the only material that meets all requirements.

Samples and full details on request.

Samuel Cabot, Inc., Mfg. Chemists, Boston, Mass.
342 Madison Ave., N. Y., 24 W. Kinzie St., Chicago.

education are to be elected each two years in August from the county at large and to receive \$5 per day for their services.

—In a joint committee report to the New York legislature dealing with the separation of city councils and school boards the following occurs: "In more than one city we were told that the educational department harbored as many politicians as any other municipal department, and that "board of education politics" was as bad as any other kind, and often more costly for the taxpayers." Another part of the report says: "It is not surprising that some boards of education, acting on the recommendations of enthusiastic superintendents, have earned a reputation for extravagance."

—The territorial legislature of Alaska has placed a number of school laws upon its statutes. Among these tuition fees of \$30 for pupils residing outside of incorporated districts and attending a minimum of 140 days are fixed. Vacancies on school boards are filled by city councils subject to the approval of the remaining members of the board. The college of agriculture and school of mines are to receive better support.

—The Florida senate passed a resolution to the effect that Darwinism shall not be taught as truths in the public schools of the state.

—The parents and property holders of Iowa City, Ia., have brought a suit against the local school board, namely, president T. Dell Kelley and the other four members, compelling the reopening of two schools which have been closed.

—The constitutional convention of Missouri voted to limit the state revenue for schools to 25 cents instead of 33-1/3 per cent as proposed by the education committee.

—The school board of North Plainfield, N. J., last year raised \$300,000 by bond issue for land and building of a high school. The site was purchased after which a number of taxpayers protested, holding that the same was unnecessarily large. The state department of education has decided that the school board cannot legally rescind its action.

—Through an Ohio supreme court decision the sum of \$380,000 is added to the school fund of Cincinnati. The legality of a half mill extra levy voted last fall came into question. This

levy received a majority vote, but less than sixty per cent of the total vote. The question was contested in the court of appeals which held that a majority vote was sufficient. The supreme court sustained that position.

—The New York court of appeals has decided that the Buffalo board of education cannot compel the city council to issue \$3,500,000 bonds for the construction of new school buildings.

—The Benton Ridge, Ohio, school board has been enjoined from building a \$60,000 high school on the plea that there are only thirty high school pupils in the district and that therefore the need for such a school does not exist.

—At Akron, Ohio, a civic association has brought legal action against the school board seeking to prevent that body from erecting an \$800,000 high school on a given site. The school authorities hold that an addition to the old high school is not warranted and the project of a new school on the site chosen cannot be successfully assailed.

—A new Arizona law provides that the recall of officers shall apply to school trustees.

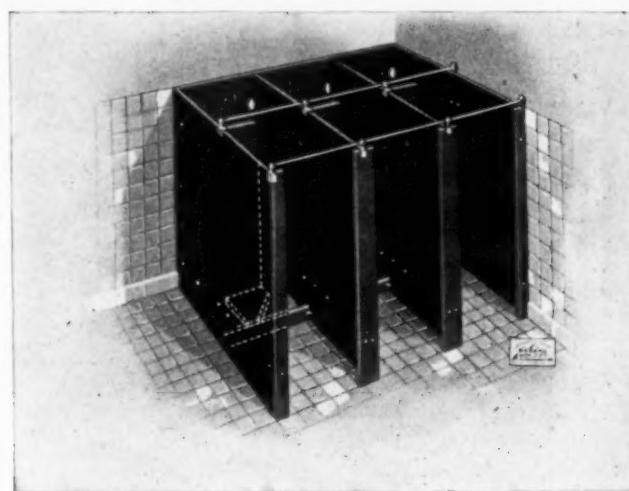
—The Arkansas legislature has provided a tax of two and one half per cent on natural products such as oil, gas, timber, coal and minerals two thirds of which are to go into the state school fund. The new law also provides for an income tax of one tenth of one per cent on all gross income to go into the state school fund.

—The legislature of North Dakota has appointed a socalled school finance and administration comission to make a thorough study of the school situation of the state and report to the next legislature.

—State Commissioner of Education, Frank P. Graves of New York, has ruled that where a teacher dies during the vacation period after having completed a full year of service her estate is entitled to the balance due as salary for the year.

—The supreme court of the United States has spoken on the question of foreign languages in the private and parochial schools. No state can hereafter forbid the teaching of foreign languages. The cases which prompted the decision came from Nebraska, Ohio and Iowa where op-

Structural Slate



SHOWER STALLS

Chapter 7 of a Series on Structural Slate gives complete data and drawings for all standardized types of Shower Stalls.

From this Chapter fixtures may be specified or ordered complete by reference merely to type and page number. Their use will be a matter of economy, and will avoid the usual multiplicity of patterns, sizes and details.

Shower stalls designed and built of Pennsylvania Slate give an installation where durability, cleanliness and perfect sanitation are unexcelled.

THE STRUCTURAL SLATE CO.

Pen Argyl

Penna.

position was manifested to German, Polish and other foreign languages. In Nebraska a teacher in a parochial school was punished for giving religious instructions to a little girl in the German language. The decision establishes finally the right of various sects and individuals under constitutional guarantees to give religious and other instructions in languages other than English. It brings to an end in addition the agitation which followed the war for the banning of the German language from American high schools, attempted in several states.

A bill designed to subject the Kansas City board of education to special legal obligations was defeated in the Missouri legislature. It provided for the publication of the budget and that no school buildings could be erected on property it did not own or on which it had no long time lease.

—The supreme court of Utah ordered Dr. C. N. Jensen, state superintendent to withhold \$100,000 from any amount payable out of the state school fund to the Salt Lake City board of education until that body has provided a complete school census.

—Seattle, Wash. The school board has notified the schools that the state code and local rulings against smoking on or about school grounds will be rigidly enforced. The students have joined the teachers in an anti-smoking campaign as a matter of school pride and school citizenship.

A Peculiar School Case.

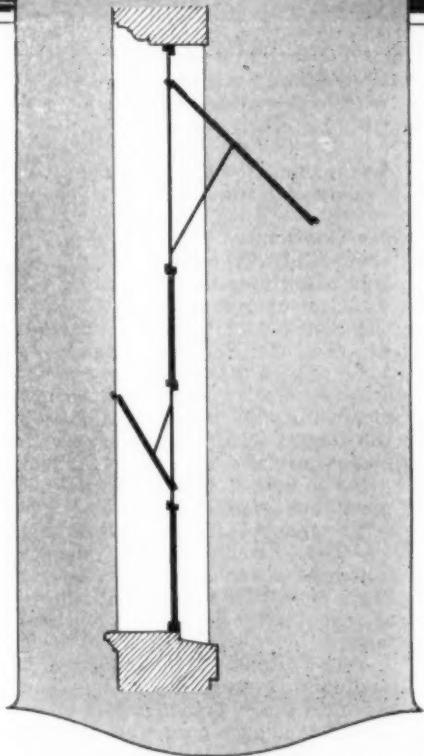
At Merrimac, Mass., a teacher was dismissed because it was alleged "she talked too much." She refused, however, to vacate and when another teacher attempted to take charge of the class the 42 pupils walked out on a strike.

The school authorities finally secured her arrest for disorderly conduct, but the court refused to convict. He held that she was subject to a fine and imprisonment and believed that she acted unwisely in defying the school authorities, but advised that she had better secure redress through a civil action. "The court is no place to settle school troubles," the judge said. The board members say that the pupils will straggle back to school as soon as the parents see the futility of defying the school authorities.

ARCHITECTURAL FENESTRA ~



At left, new Xenia, Ohio, High School; at right, the old building. Architects of new building, Pretzinger & Musselman; Contractor, Industrial Building Co.



Cross section of Fenestra Reversible Ventilator Windows shown above. The "open-in" ventilators at bottom deflect fresh air currents over the heads of the pupils, while the "open-out" ventilators at the top complete the natural, healthful circulation of air.

The old and the new; daylight and darkness. Here, in one school yard, is the old type of school building, with wood windows, poor light, poor ventilation; and beside it the modern school with Architectural Fenestra windows, providing plenty of daylight, scientifically controlled ventilation, and resistance to fire.

There are many other Fenestra advantages — low first cost and maintenance cost, ease of operation, and permanence. And wherever they are used, Architectural Fenestra Windows make a definite contribution to architectural design. May we tell you more about them?

Fenestra Windows can be quickly and economically installed by the Fenestra Construction Company — a branch of the Detroit Steel Products Company. There are many advantages in having your windows made and installed by the same group: centralized responsibility is one advantage, and saving in time is another.

Fenestra

DETROIT STEEL PRODUCTS COMPANY
Division of Architectural Construction
2604 East Grand Boulevard Detroit, Mich.

Granite - The Noblest of Building Stone

Manhasset School, Manhasset, L. I. Fred. Briggs, Arch.

Where Traffic Is Heavy Granite Is Always Used

That is why, in practically all new school buildings you find entrance door ways, sills, steps and base courses of granite. Neither weather nor wear can affect it.

Of the other little suspected possibilities that lie in granite for building purposes, our booklet Architectural Granite tells. Let us send you a copy today.

National Building Granite Quarries Association, Inc.

H. H. Sherman, Secretary

31 State Street, Boston, Mass.

GRANITE

SCHOOL BOARD NEWS

PUBLIC SCHOOL OFFICIALS ORGANIZE

The Rhode Island Association of Public School Officials was organized at Providence, R. I., on May 18th, 1923. The initial meeting was well attended. The keynote address was delivered by Albert N. Meredith, state commissioner of education of Connecticut. He said in part:

"In the past few years the business of school administration has become quite complex. The school committee of today has relationships with the state, local community officials and the local community as a whole. However, the school committee members are really state agents and can no longer be considered merely local officers."

"Fiscal autonomy for school committees is being established in some places, and school committee investigations in many. Every court decision so far has decreed that the school committee has a primary function of government. The school committee is a really representative body. It should be the creator of public opinion as well as the reflector. The first thing that every school committee should do is to formulate a definite educational policy. All of its later decisions should be made in the light of this policy. Having formulated such a policy, the school committee should then proceed to sell it to the public."

"No school committee is going to be successful unless it has public opinion back of it. The committee's slogan should be "Keep the public near the school," meaning "keep the people informed of what is going on in the schools."

The officers elected are as follows: President — William W. Blodgett, chairman of the Paw-

tucket school committee; Honorary President—Dr. Walter E. Ranger, State Commissioner of Education; Vice Presidents—Edward I. Mulcahey of Providence, Michael E. Roarke of West Warwick, Rev. Thomas W. Bowen of Narragansett, Miss Alice C. Currier of Newport and Robert J. Connery of Bristol; Secretary-Treasurer—Robert K. Bennett, superintendent of schools in Central Falls.

AMONG BOARDS OF EDUCATION.

—The five members of the Chicago board of education ousted by Mayor Dever have employed a lawyer to institute quo warranto proceedings for re-instatement. They were prevented by a police guard from entering the meeting of the newly appointed board.

—At Springfield, Ohio, the board of education dismissed a principal because he had been active in the school election opposing and supporting candidates in the interest of a teachers' salary raise.

—When the board of education of Bellingham, Wash., was called upon by civic societies to explain why it had dismissed the high school principal it refused to make any public explanation. The objectors were informed that anyone desiring the reasons for dismissals could obtain them privately from the three members who had voted against the principal.

—A woman candidate for the school board of Wilmington, Delaware, was ruled out as being ineligible when it was discovered that she had failed to vote at the last election and had not registered for the school election.

—A school board election at Royal Oak, Mich., is inaugurated by a press statement that "Our schools are primarily for the education of our boys and girls and the only reason a man of integrity could have for aspiring to a place on our school board, would be because of the good he hoped to accomplish for them. All other activities in our schools are secondary and should be treated as such." The statement which is written by Mrs. Fred T. Molitor closes by saying that "We want men on our school board who will realize the responsibility of their positions and who can see beyond today, into the future when these boys and girls will take their places

as men and women in the world's work, and whose success or failure depends largely on their training in our schools today."

—Robert Allen, the veteran member of the Burlington, Iowa, school board who has reached the age of ninety finds himself still hale and hearty.

—At Rome, N. Y., Herbert T. Dyett and William E. Scott were reelected members of the board of education without opposition. In commenting upon the result of the school election the Sentinel of Rome, N. Y. says: "If one life like that of a Caesar, a Napoleon, a Washington, a Lincoln, a Roosevelt or a Wilson can change the course of human events, how great the responsibility of those who have in their charge the formation of character, the inclining of the reasoning faculties of thousands of pupils!"

—The school board of Little Rock, Ark., has made its teachers contracts for next year on a nine instead of ten months basis.

—The Chicago board of education has decreed that high school pupils who marry are excluded. A nineteen year old student who reported himself at school after his honeymoon was promptly dismissed.

—The Clubs of Wilmington, Delaware, have combined in securing the election of women on the local board of education.

—The county board of education at Ironton, O., has abolished all the local school boards with a view of centralizing the county schools.

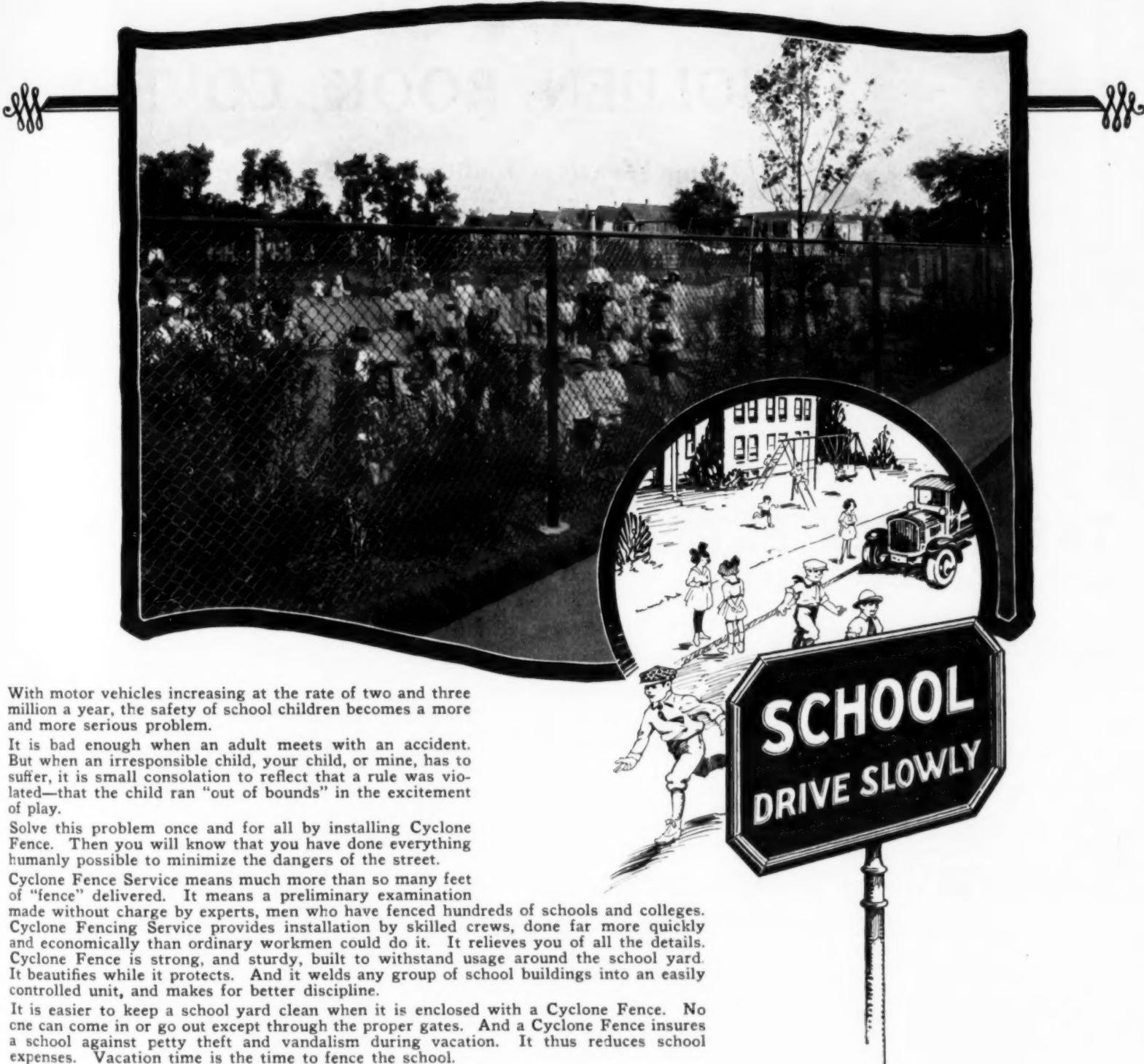
—The board of education of Spokane, Wash., has voted to retain physical training as a compulsory study.

—Mayor Dever of Chicago has proceeded to create a new school board of eleven members. He has accepted the resignations of eight members appointed by former Mayor Thompson, retaining three members, Dr. John Dill Robertson, Mrs. Johann Gregg and J. Lewis Coath.

—Dr. Charles H. Ludlum has been elected to his eighth term as a member of the Hempstead, N. Y., school board. These terms cover five years. On August 1st, Dr. Ludlum will have completed thirty-five years of continuous service on the school board, and for twenty-eight years he has served as president of that body.

(Continued on Page 78)

Your Moral Responsibility Ends, Gentlemen, When You Take this Step



With motor vehicles increasing at the rate of two and three million a year, the safety of school children becomes a more and more serious problem.

It is bad enough when an adult meets with an accident. But when an irresponsible child, your child, or mine, has to suffer, it is small consolation to reflect that a rule was violated—that the child ran "out of bounds" in the excitement of play.

Solve this problem once and for all by installing Cyclone Fence. Then you will know that you have done everything humanly possible to minimize the dangers of the street.

Cyclone Fence Service means much more than so many feet of "fence" delivered. It means a preliminary examination made without charge by experts, men who have fenced hundreds of schools and colleges. Cyclone Fencing Service provides installation by skilled crews, done far more quickly and economically than ordinary workmen could do it. It relieves you of all the details. Cyclone Fence is strong, and sturdy, built to withstand usage around the school yard. It beautifies while it protects. And it welds any group of school buildings into an easily controlled unit, and makes for better discipline.

It is easier to keep a school yard clean when it is enclosed with a Cyclone Fence. No one can come in or go out except through the proper gates. And a Cyclone Fence insures a school against petty theft and vandalism during vacation. It thus reduces school expenses. Vacation time is the time to fence the school.

Write nearest offices for information, addressing Dept. 00.

CYCLONE FENCE COMPANY

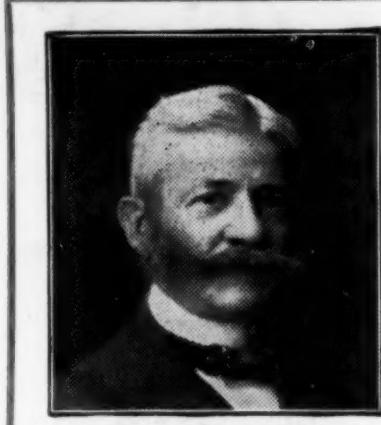
Factories and Offices: Newark, N. J., Fort Worth, Texas, Oakland, Cal. (Standard Fence Co.)
Waukegan, Ill., Cleveland, Ohio, Portland, Ore. (Northwest Fence and Wire Works)



THE "RED TAG"
The Mark of Quality

Cyclone Fence

PROPERTY PROTECTION PAYS



**Immediate Shipment can be made
Of All Sizes and Qualities of
HOLDEN BOOK COVERS**

**Our Wearing Quality is the Best
Our Manufacturing facilities are Unsurpassed
Our Stock on hand is large and complete**

Direct Service - Freight Paid

OUR MILL TO YOUR SCHOOL HOUSE

Samples Free

THE HOLDEN PATENT BOOK COVER COMPANY

MILES C. HOLDEN, President

SPRINGFIELD, MASSACHUSETTS

(Continued from Page 76)

—Erskine Ramsay who has been elected president of the board of education of Birmingham, Alabama, is a wealthy bachelor who gives his time and talents to public service. He donated \$100,000 to a polytechnic school at Auburn, Alabama.

—New York, N. Y. President George J. Ryan of the board of education has been appointed a committee of one to conduct an investigation of the board of examiners, its conduct and affairs, and to report his findings to the board. The investigation is to be impartial, complete and public and is intended to clear up controversies, charges and counter charges, allegations of lack of competency and implications of dishonesty and autocracy within the board of examiners.

—Under an opinion rendered by the attorney general of Wisconsin, members of the board of education of Superior must be appointed under the commission form of government in the same manner as they were when government of the common council was in force. The opinion supports the mayor's contention that R. Carlson, recently named to the board, holds office illegally.

—Philadelphia, Pa. After negotiations covering more than fifteen years, the board has ordered the purchase of a site for an administration building on North Twenty-first Street. The building will cost approximately \$2,454,000.

—Two Rivers, Wis. The school board has given historic names to the school buildings. The new high school has been given the name of the Washington High School and two other buildings have been named the Roosevelt and the Hamilton.

—Mansfield, O. Upon the suggestion of Supt. H. H. Helter, the board has approved the inauguration of mid-year promotions. The plan will be limited for the present to the graded schools.

—St. Louis, Mo. The board has rescinded a rule permitting corporal punishment in the schools. The repeal of the rule followed a complaint that a boy had been struck by a teacher and injured.

—The school director who is interested in his school is constantly on the job. His office is an honorary one, but his compensation comes from a knowledge of duty well done, schools operated at a maximum of efficiency, and boys

and girls trained to manhood and womanhood under the direction of capable teachers." So writes Clio Harper in the Journal of Arkansas Education.

—The duties of the director cannot be designated by statute or court decision—these are only aids. There are certain duties appointed by law, but these are fundamental, and upon them the director must build the superstructure of the school. The very fact that it is an office without salary is the greatest reason why it should be taken seriously, since the director has been honored by his fellow citizens by election to an office of trust and responsibility."

—Dudley Farrand was appointed a member of the Newark, N. J., board of education to succeed J. H. Bacheller resigned. Mr. Farrand is a mechanical engineer of high standing.

—The new mayor of Macomb, Ill., appointed a school board subject to the approval of the city council. But, the council balked and refused to ratify the appointments. The mayor, however, remained firm and refused to change his appointments. The state superintendent has decided that the old board would continue in office until the new is duly created.

—The new members of the Kansas state board of education are R. M. Crum, superintendent of Wichita county, Mary E. Woolverton, superintendent of Abilene and superintendent Kratochvil of Clay Center.

—The union board of high schools at Cincinnati, Ohio has been organized with Dr. Frank B. Dyer as president, Charles H. Stephens as

vice-president and Robert W. Shafer as secretary.

—At Oakland, California charges are made against a school principal to the effect that he introduced a candidate for the school board to his teachers with a view of securing their votes for him. It is also charged that a group of high school students distributed campaign literature for certain candidates during the spring school board election.

—In support of women as members of boards of education Katherine Henry in the Country Gentlemen says:

"Men are as a rule concerned with what we consider the larger affairs of life, women with the more personal. Men can supervise buildings and grounds, the yearly budget, the conduct of school meetings, contracts, janitor service, and the more material side of school administration, with an informed experience that women lack; though there should be one woman on each of these committees, partly for the good of the school, partly for the good of the woman. Every community has several women who could bring to the selection of teachers and textbooks a knowledge of the way these two items affect the children that the most conscientious man on the board lacks. Women are more sensitive to the physical welfare of children than men."

—The new members of the Rockford, Ill., board of education appointed by Mayor Hallstrom are John F. Armstrong, P. A. Peterson, Mrs. Clara Morgan Savage, C. A. Peterson, Rev. J. S. Dancey and Dr. T. H. Culhane. The hold over members are Mrs. Gust Ogren, H. C. Wright and Frank Engdahl.

—New Bedford, Mass. The special committee appointed to study the matter of janitors' salaries has made its report to the board. The committee recommends that a schedule based on a four-room unit be adopted, providing for a salary of \$30 a week and fifty cents for each additional room—hall to be designated as one classroom, cooking and manual training rooms to be designated as two classrooms.

It is recommended that assistant janitresses be not employed as has been done in the past. Enough extra janitors should be employed full time to permit the assignment of one to each

(Continued on Page 80)

A LIVING WAGE.

It is hard to overestimate what the payment of a living wage to all teachers in our country could be made to mean. It would be possible for educational authorities to establish and enforce high standards of professional training of teachers; the profession might appeal to the most progressive and spirited type of young men and women; and the boys and girls might be assured of a type of instruction and guidance that would brighten and not dull the finer points of their mentality. Such an increase of revenue would surely mean a renaissance educational.—Alabama School Journal.

**THE FUN FULL LINE
PLAYGROUND EQUIPMENT
FOR KIDS**



“Every Schoolground a Playground—”

***93,000 children killed and injured
Within a year in the streets of our cities! -***

Mr. School Man is not the great need for more playgrounds a thing worthy of your Consideration?

Should you rely on Park boards or Civic organizations to establish and maintain safe places for the children to play?

This company will gladly assist any school official with his playground problems.

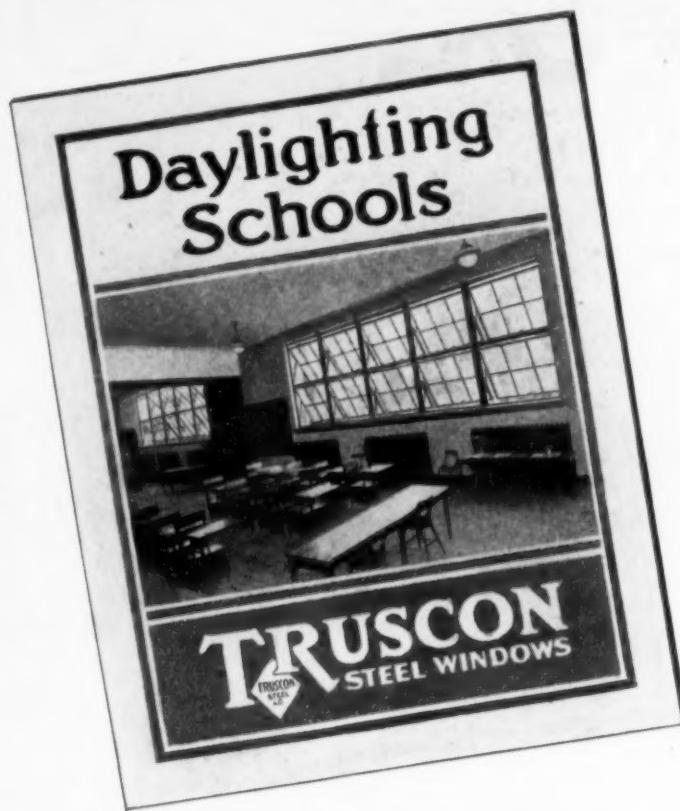
Let us send one of our beautiful catalogs.

Largest manufacturers of Playground equipment.

Awarded Gold Medal—Brazilian Centennial Exposition, 1923

HILL-STANDARD CO., ANDERSON, IND.
Our 22nd Year

THIS IS NOT A CATALOG



A copy of this book is yours for the asking. It is just another phase of Truscon building service.

READ what Mr. John J. Donovan, A.I.A., one of the foremost school architects in the country, has to say about natural lighting and ventilation in schools. This interesting article and a resume of the famous report of the New York State Commission on air conditioning are in "Daylighting Schools," which is just off the press.

Naturally a wide variety of Truscon Steel Windows adaptable for every type of school design are profusely illustrated in this book. To make it more complete there are nine full pages of beautiful architectural details.

"Daylighting Schools" is not a catalog but an instructive book crammed full of vital information. Every school board member and every architect and engineer, interested in the school construction, should read it. Send for your copy today.

TRUSCON STEEL COMPANY
Youngstown

Ohio

Sales and Engineering Offices in Principal Cities.

TRUSCON

STEEL WINDOWS

(Concluded from Page 78)

building of eight rooms, or more, one day per week.

Qualifications, rather than seniority, should be the deciding factor in assigning or transferring janitors.

It is provided that the salary schedule shall be so arranged as not to reduce the salary of any janitor unless he is transferred to a smaller building or placed on the substitute list.

—Port Huron, Mich. The school board has ordered that each teacher be provided with a Bible. Each school session will be opened with appropriate religious exercises.

—The adoption of high school texts by the Indiana state board was marked by its refusal to select any books in the German language. Under the 1923 law making the teaching of German permissible, it is not mandatory for the board to select texts for the subject.

—Hamilton, O. The board has fixed the school term for next year at ten months, replacing the former nine-month plan. The plan had not been entirely successful and complaints had been made by the parents.

—Martins Ferry, O. Hazing activities of all kinds have been prohibited in the high school with the beginning of the next school year.

—Stevens Point, Wis. The janitors in the city schools have been given increases of \$10 per month.

—Duluth, Minn. Salary increases ranging from \$2.50 to \$15 have been given to engineers, janitors and maintenance men employed in the city schools.

—Chicago, Ill. Coal prices for the schools of Chicago are approximately fourteen per cent lower than those submitted for the year 1922-23 based on bids submitted by 149 contractors. The expenditures for the year 1923-24 will not exceed \$800,000, whereas last year's coal amounted to nearly \$960,000.

—Middletown, O. The old high school building which is to be used by the eighth grades next year has been named the Roosevelt School.

—South Bend, Ind. The high school students will pay an average of 27 cents more a copy for textbooks during the next five years. The total of the new retail prices of the 48 books just adopted by the state board is \$68.99. The total

of the present prices of the nineteen readopted books is \$22.09, an average of \$1.17. The total of the prices of the 29 new books adopted is \$41.25, an average of \$1.42 a book.

—Bristol, Va. The city has voted \$150,000 for a primary and intermediate school building. The building will contain twenty classrooms, a gymnasium and auditorium.

—Hackensack, N. J. Because of a rapid growth in school population in certain districts, the recommendation has been made that the board begin a study of the trend of growth and the probable future development of the city. This study which is intended to lead to the adoption of a definite plan of action, will furnish a guide for the selection of items to be given attention in future years. In this manner, a steady, consistent development will take the place of the present more or less haphazard methods in building construction.

—Dr. John A. Ferguson, chairman of the building and grounds committee of the New York City board of education, recently announced that the stupendous school building program would not be delayed because of the strike of bricklayers. It has been arranged that the building of schools shall proceed without interference even though other construction may be held up.

The progress made in the construction work has been considerably unsatisfactory because of a shortage of mechanics, especially of bricklayers, and more speed is the order if the work is to be completed.

—Baltimore, Md. The school board's budget for 1923 showed that for salaries alone it would require \$6,538,230. From this budget the board of estimates lopped off more than a million dollars. It has thus become obligatory upon the school board to make a corresponding reduction in the salary account.

Inasmuch as lower salaries are out of the question, the board is faced with another alternative, that of making a slight increase in the number of pupils per class. A study of conditions in Baltimore and in other similar cities showed, however, that Baltimore had the lowest average per teacher—this average being in the elementary schools about 38, in junior high schools about 27, and in senior high schools

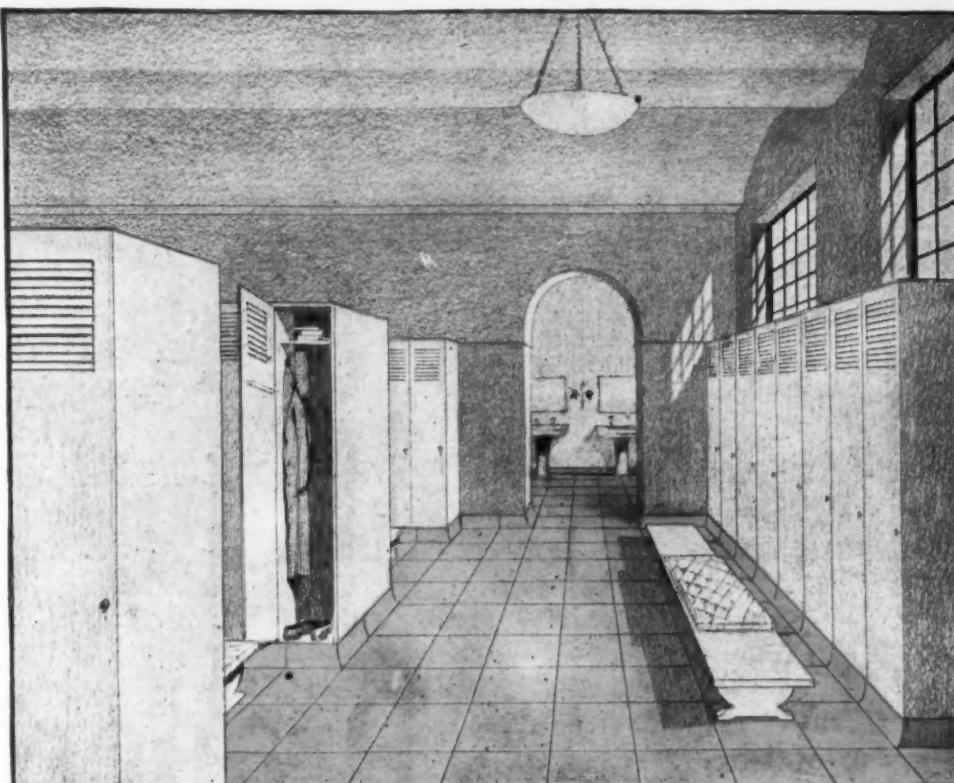
practically the same number, the average for all schools being 33.7.

In Baltimore, there were on December 31st, 1922, a total of 266 classes containing 11,228 pupils attending school for part of the day only. If classes be increased in size even slightly, such increase will correspondingly reduce the number of part-time classes. There are now 435 substitutes in teaching positions, many of whom have had little or no training or experience. Many of these substitutes can be eliminated. The plan proposed is the 44-33-30 plan, which means 44 pupils per teacher in the elementary schools, 33 in junior high schools and 30 in senior high schools. With this number in elementary schools, it is possible to omit the principal in schools of more than ten classes, to meet the salary problem and to reduce more than half the number of part-time pupils.

—Under the direction of Supt. R. V. Hunkins of Lead, S. D., the schools have inaugurated a carefully organized high school student association, established a permanent graded salary schedule for teachers, instituted a summer school allowance for carfare and tuition for school attendance, initiated a plan for systematic visual instruction, and started activities for an extension of the building activities of the high school.

—Burkburnett, Tex. A supervisor of tests and measurements has been employed to give full time to that work. Classes are grouped on the basis of the scores made in the intelligence and other standard tests, together with the teachers' judgments. The triple-track plan will be used in the lower grades next year. The course of study for the brighter pupils will be heavier and slightly different in character from that of the slower groups.

—The Minneapolis, Minn., board of education has fixed the following school vacation days for 1923-24: Labor Day, Monday September 3; Minnesota Education Association, November 2; Thanksgiving Day, Thursday November 29 and Friday following; Christmas vacation, December 22, 1923 to January 6, 1924 inclusive; Lincoln's birthday, Tuesday February 12; Washington's birthday, February 22; Easter vacation, April 12 to 20 inclusive; Memorial Day, Friday May 30, 1924.



*Marked into squares, a
COLORMIX FLOOR
is the practical equiva-
lent of one built of far
more expensive materials*

Colormix Floors Make Important Savings Possible

COLORMIX Floors are rapidly being adopted as thoroughly satisfactory substitutes for the highest priced decorative flooring materials.

In beauty and durability these new colored concrete floors are the practical equivalent of far more expensive installations. Their actual cost is very little higher than that of plain concrete.

Colormix employs a new principle in coloring cement floors. Dissolved in the mixing water, it dyes every particle of sand and cement a deep, uniform, non-fading color. In the same operation it increases the tensile and compressive strength of the concrete, producing a permanently wearproof, dustproof, non-absorbent floor. The hard, smooth surface of a Col-

mix Floor insures a high degree of sanitation and reduces maintenance cost to the minimum. Colormix offers you opportunities for important economies in the installation of decorative floors. On the other hand, you can now have, at slight additional cost, colored floors in quarters where, until now, you have had to put up with unattractive ones.

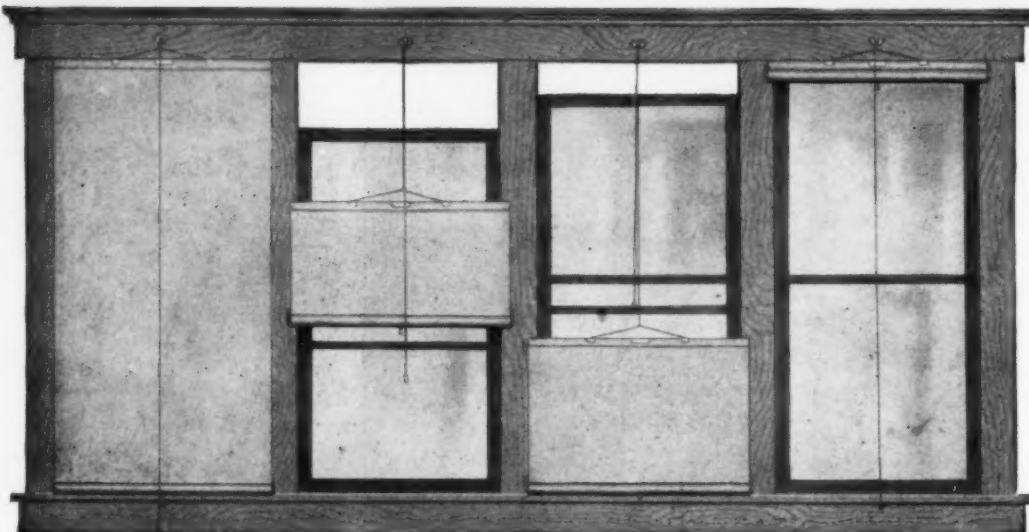
*Six Colors to Choose from: Tile Red, Nile Green,
Linoleum Brown, Buff, White and Gray.*

*Send for our illustrated book of facts and actual specimens
of Colormix Floors showing their composition and beauty.*

COLORMIX FLOORS

The Master Builders Company, Cleveland, Ohio
Factories at Cleveland and Irvington, N. J.

Sales Offices in Eighty Cities



Modern

Practical

Decorative

SOME RECENT INSTALLATIONS
ARE:

North Texas Normal School,
Denton, Texas.

City Schools,
Richmond, Va.

Froebel and Emerson Schools,
Gary, Ind.

Board of Education,
Oklahoma City, Okla.

Board of Education,
Norfolk, Va.

Y. M. C. A. Building,
Anderson, Ind.

*Draper's Adjustable Window Shades
meet every schoolroom requirement.*



Draperize YOUR SCHOOL

Draper's Adjustable Window Shades are guaranteed to give satisfactory service and will continue to do so over a long period of years,—because, Draper's Adjustable Window Shades are built for service—and meet every window requirement most satisfactorily, efficiently and economically.

Their mechanical construction is simple, positive in action and absolutely "fool-proof." They have no delicate parts to get out of order. The rollers, which are specially built, are large and strong and are equipped with an oversized spring which insures their rolling and carrying qualities.

Let us solve your window shade problems. Tell us how many windows there are in your school building, give us the size, and our experts will be glad to make suggestions and will quote you on equipping your building. This service places you under no obligation.

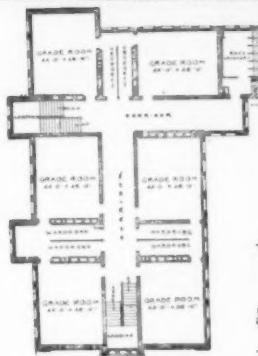
Descriptive literature on request

LUTHER O. DRAPER SHADE COMPANY
Spiceland, Indiana.

Draper Adjustable Window Shades

Investigate before buying Draper's Adjustable Window Shades. Our experts will be pleased to offer suggestions and will quote you on equipping your building.

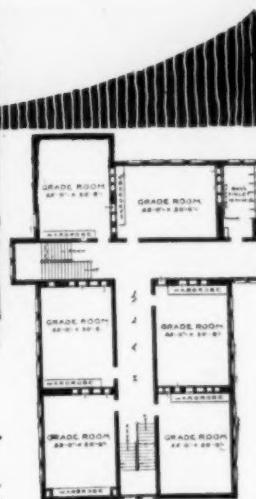
Wilson



Typical floor plan of school with built-in, out of sight wardrobes.



Wilson Hygienic Wardrobe with rolling fronts built into alcove. Fronts stop free of floor to allow for ventilation.



Same plan laid out for Wilson Hygienic Wardrobes. Same coat and hat capacity, added class morale, with each class room about 55 square feet larger.

You can increase the size of your school without increasing its cost

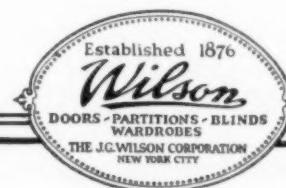
WILSON Hygienic Wardrobes have done it for many schools and can do the same for you. The plan on this page tells how.

Besides their economy of space, Wilson Wardrobes can be heated and ventilated the same as a built-in coat room, and have the added advantage of being constantly under the teacher's eye.

May we send you a pamphlet showing some interesting installations and the different styles in which they come.

The J. G. WILSON Corporation
14 EAST 36TH STREET, NEW YORK CITY

OFFICES IN ALL PRINCIPAL CITIES



SCHOOL FINANCE AND BUILDING

THE NEVADA STATE SCHOOL FINANCES.

In 1912 the cost per pupil in the state of Nevada was at \$76.38 and in 1920 at \$128.22. For the year ending June 30, 1922, the total cost for high schools was \$514,642 while that for elementary schools was \$1,270,188. The increased cost is due to the increased enrollment in both high and elementary schools, the introduction of commercial and vocational courses together with the diminished purchasing power of the dollar.

The state funds during the school year 1921-22 apportioned amounted to approximately \$350,000. This was \$24 for each child between the ages of 6 and 18 years of age. Based on average daily attendance, the amount of state funds was approximately \$30 per pupil for the year. The basis of distribution of the state funds, however, is not a per pupil capita basis. The money is distributed as follows:

The sum of \$275 a year per census teacher (each 30 census children and an additional census-teacher for each fraction of 30 amounting to 15 or more) and \$13 per census child. If the daily attendance of a school district has been 3 for 100 days and there are 5 census children, the per census-teacher apportionment is \$125 a year. For example: A school district having 10 census children received \$275 plus \$135 or \$405 from state funds on its regular apportionment.

Also there was special state relief apportionment made to certain districts that levied a special tax of 15 cents or more and the county in which such district was situated had a school rate for maintenance of 40 cents or more. This state relief amounted to \$10 per census child, no district to receive less than \$100.

SCHOOL BUILDING ON CASH BASIS.

The building committee of the school board at Milwaukee, Wis., urges that a five year school building program be financed on a cash basis. The committee submits the following reasoning:

After the present shortage in school buildings has been relieved and conditions again become normal, school building needs arising each year will be fairly uniform, since the yearly increase in school attendance is fairly uniform. Providing school buildings will then be a regularly occurring expenditure.

"In this respect the building of schools is different from many other public improvements. A city hall or a sewerage disposal plant, for instance, are not improvements for which the demand occurs with regularity. When these have been completed they will serve the needs that produced them for years and it is difficult to say when, if ever, additional structures of that nature will be required. The same largely holds true of a central police station or the acquisition of a harbor site. The need for these improvements does not occur at regular intervals. The financing by bond issues of improvements of this kind with their consequent higher costs is being justified as extraordinary expenditures, and the interest and sinking fund is distributed over a long period with the purpose of having those who enjoy the benefits of the improvement bear the costs.

"The future, to be sure, will enjoy the privileges of school buildings that are erected in the present, but the future will be called upon to erect school buildings for the next period. Since the present and the future must each bear the financial burden of school buildings erected theretofore by a financing method that adds 50% to the actual cost of the building, why not let each period erect its own buildings without burdening the future and effect thereby a saving to the city treasury of 50% on the cost of the school structures?

"We therefore suggest that after the completion of the five-year building program future school buildings be financed by direct taxes rather than by bond issues; that bond issues be resorted to only for extraordinary expenses, such as the erection of high schools.

An Appeal for School Fire Prevention.

State Superintendent Francis G. Blair of Illinois urges the school boards and school architects of the state to confer in the matter of fire prevention. In a bulletin he pictures the horrors of a schoolhouse fire in which the lives of children are sacrificed and then adds:

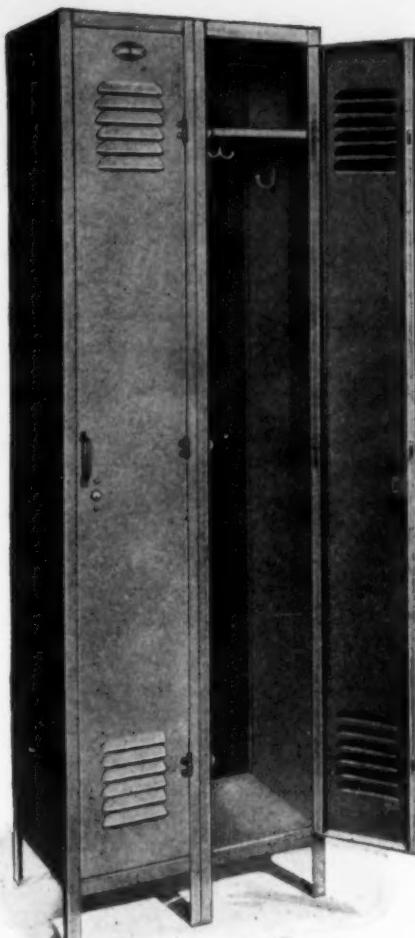
"Look, Mr. Janitor. Can you see that heap of writhing, strangling children piled high against the doors which you bolted with your own hands? No, no, don't turn away. They're breaking in the doors now. See those mangled, blackened forms which parents are snatching from the flames! Look again, Mr. Janitor! It's all a part of your ghastly work. Stay and see it finished. They came this morning, bright and happy, those children. They placed their lives in your hands. You betrayed their confidence. Look at them now. Their charred hands are not raised against you, their smothered voices offer no protest, their blackened faces frown not upon you, but before these broken parents and in the presence of a just God you must stand and give an account of your stewardship."

"And you, Mr. Contractor, and you, Mr. Architect, and you, Mr. Director—you who held so lightly your obligation to safeguard the lives of these children—come with me and view the wreck and ruin which your ignorance and greed have wrought. Yes, yes, I know that the crape on your own door makes it hard for me to say it, but it must be said. No ingenious explanation which you can give will bring back the rosy cheeks and happy faces. No abject apology can hush that awful sob that shakes a hundred homes. Nothing that you can say or do will make these charred walls resound again with the glad voices which your unpardonable blunders choked out. still

A STATE WIDE SCHOOL FINANCE PLAN.

The state department of public education of Pennsylvania has adopted a plan for financing public education which contains the following features:

1. A plan for the budgeting of the finances of local school districts so that adequate revenues may be anticipated to meet expenses and the fullest measure of economy and publicity in-



*"No Better Built
than Durabilt."*

DURABILT

Steel Lockers for Every Purpose

The Durabilt Factory, specializing on Steel Lockers exclusively, has unexcelled facilities for supplying every locker need. Those contemplating the purchase of complete Locker Equipment for new buildings are invited to make free use of our Advisory Service in working out suitable plans. We make—

**CORRIDOR LOCKERS—
GYMNASIUM LOCKERS—
BOX OR BOOK LOCKERS—
COMPARTMENT LOCKERS—
RECESSED LOCKERS—
VENTILATED LOCKERS—
BASKET RACKS, ETC.**

Estimates cheerfully submitted. Samples furnished. No obligation incurred. If your need is for only a few lockers, your request for information, service or prices will be just as welcome. You want the BEST equipment obtainable for your school—in Lockers that means Durabilt. Remember the **Durabilt Features** that have set a mark for locker construction improvements—

Self-latching Door. One-piece concealed Locking Mechanism.
Double-thickness adjustable Hinges. Massive
double-riveted Frame. Over-size Air
Vents. Rust-proofed Hardware.

*Any Locker That Can Not Offer You These Features
Should Sell For Less Money Than Durabilt.*

DURABILT STEEL LOCKER CO.

400 ARNOLD AVE.

AURORA, ILLINOIS.

sured in the treatment of expenditures.

2. Simplicity, so that each board in the state may determine in advance the amount of funds which it will be entitled to receive from the state and thus know how much it must raise by local taxation.

3. Contribution by the state of a certain percentage toward the payment of teachers' salaries, thus making possible properly qualified teachers even in districts of lower assessed valuation.

4. Provision for standardization of teachers' qualifications through standardization of compensation paid to teachers.

5. Such a distribution of state aid as will give to districts of relatively low valuation a progressively larger appropriation from the state school fund in inverse proportion to their ability to finance education.

BUILDING AND FINANCE.

—Cheyenne, Wyo. The school district, in April last, approved a bond issue of \$115,000 for a new elementary school. The building will contain seventeen rooms, an auditorium and a gymnasium and will cost about \$150,000.

—A report comes from New York City that many of the schoolhouse contracts are delayed for the want of labor. Wages have jumped so high that contractors will face bankruptcy. Dr. John Ferguson chairman of the building committee in urging an extension of time said: "Very few of our contractors are strong enough financially to go ahead at a loss. Many of them would be bankrupted by paying present competitive wages. Furthermore, they have nothing to lose by delaying work until prices fall to a scale at which they can make a profit, and very little to gain by rushing work ahead, for the Board of Education is not allowed to give bonuses to encourage them to help us meet the part time emergency, and there is no penalty clause in any of the contracts to make them lose by falling behind schedule."

—At the dedication of the new high school at Ypsilanti, Mich., president E. E. Schmid of the board of education and superintendent L. L. Nutler delivered the addresses.

—J. M. Colley succeeds Edgar A. Rassimer as architect for the Louisville, Ky., board of education.

—The Elgin, Ill., board of education will adopt a budget system. Dr. F. C. Schurmeier, president of the board and A. M. Price, chairman of the finance committee championed the system. A change in the system of bookkeeping is also contemplated.

—St. Albans, W. Va. An eighteen-room high school is in course of erection. The building which has been

named the Weimer High School, was designed by Architects Knapp and Haviland, Charleston.

—Fairport, N. Y. An appropriation of \$375,000 has been voted for the erection of a new grade-and-high school building. The building which will be two stories high, will accommodate from six hundred to seven hundred pupils.

—Kaukauna, Wis. The new junior-senior high school, in course of construction, will be ready for occupancy in September. The erection of the building is due to the strenuous efforts of Supt. Schumann, who for the last eight years supported the movement for a new building in the face of strong opposition.

—New York, N. Y. The board of estimate has recommended the authorization of \$15,000,000 to the education department for the construction of schools and additions and the purchase of sites. This makes a total of \$85,000,000 allowed for school building purposes since the beginning of the present municipal administration in 1918.

—Pulaski, Va. The school board of Pulaski County has purchased a site for a new school. A bond issue will be voted in the near future.

—Last year Carroll County, Missouri, levied a tax rate of \$1.40 on each \$100 valuation. If the budget of the board of education is to be met it will require \$1.87 on each \$100 valuation. Of this amount \$1.14 will be for school purposes.

—The school board of Fort Dodge, Iowa, has reduced the cost of the schools for next year \$25,000 by cutting the term to nine and one-half months, dropping some teachers and several special studies.

—At Philadelphia Superintendent Edwin C. Broome is urging that the school building operations be speeded. Some 40,000 pupils are now on a part time schedule. The total program involves \$15,000,000.

—War has broken out between the board of education of Syracuse, N. Y., and the mayor of that city. The latter has refused to approve a bond issue of \$130,000 for school repairs. The board has denounced the chief executive in bitter terms.

—The schools of Union County, New Jersey, have suffered a reduction in state school funds amounting to \$46,359. Last year the county received \$1,012,977 and this year Union receives \$966,617. Plainfield County similarly received a reduction of \$10,979.

—Pawtucket, R. I. Plans have been prepared for a new three-year senior high school. At the present time a large addition is being constructed to be used as a junior high school for the east side. On the west side, an addition has been similarly erected for another junior high school.

—Raleigh, N. C. Bonds have been voted for the operation of a building program. Two elementary buildings will be occupied in September, another by Christmas, and four more will be erected. The last four comprise two elementary schools, a junior high school and a senior high school.

—Pullman, Wash. A special levy of five mills has been voted for the support of the public schools next year. The levy is a reduction of two mills from the amount raised last year.

—Beaver Dam, Wis. A new building has been completed for the junior-senior high school which will be occupied this fall.

—Wooster, O. An addition to the high school has just been completed at a cost of \$100,000. The old high school, together with the present annex will be used by the junior high school. The new high school, in course of construction, will cost \$400,000 when completed. The entire plant is to be ready for use in February, 1924.

—Charleston, W. Va. The citizens have approved a bond issue of \$1,350,000 for new schools. The plan call for a senior high school, a junior high school and several units of grade buildings.

—Montezuma, Ga. A census of the school for Macon County has begun for the purpose of basing the county's share of the state fund for maintenance of schools.

—Andersonville, Ga. Ten thousand dollars in bonds were voted to build a new school building.

—Raleigh, N. C.—Building programs of state institutions is expected to proceed immediately following the announcement at the capitol recently that the \$10,667,500 in bonds appropriated by the 1923 general assembly is available for immediate use.

—The total amount collected for education in California for the fiscal year ending June 30, 1922, says the San Bernardino Sun, was \$100,933,836.51 while for the same year the total collected for public education from every source in Wisconsin was \$56,054.95.

—The corner stone laying of the half million dollar high school building at Manitowoc, Wis., was observed in June with appropriate ceremonies. President John J. Kelley of the board of education and Principal C. G. Stangel delivered addresses. George Schadeburg, a member of the board, placed the cornerstone.

—Richmond, Va. The George Wythe Junior High School was opened on April first. The building which contains forty classrooms is entirely fireproof in construction.

—The Armstrong colored high school in course of completion, will be occupied next fall. It is a 20-room building and is considered one of the best of its type in the south.

—Tacoma, Wash. The school board, on June 13th, received bids for the purchase of \$1,200,000 of serial bonds of the school district. The bonds were part of an issue of \$2,400,000 for school sites, buildings and equipment, approved by the citizens at an election held on May 8th of the present year.

—Wilmington, Del. The school board has adopted a budget of \$1,135,239 for the next year.

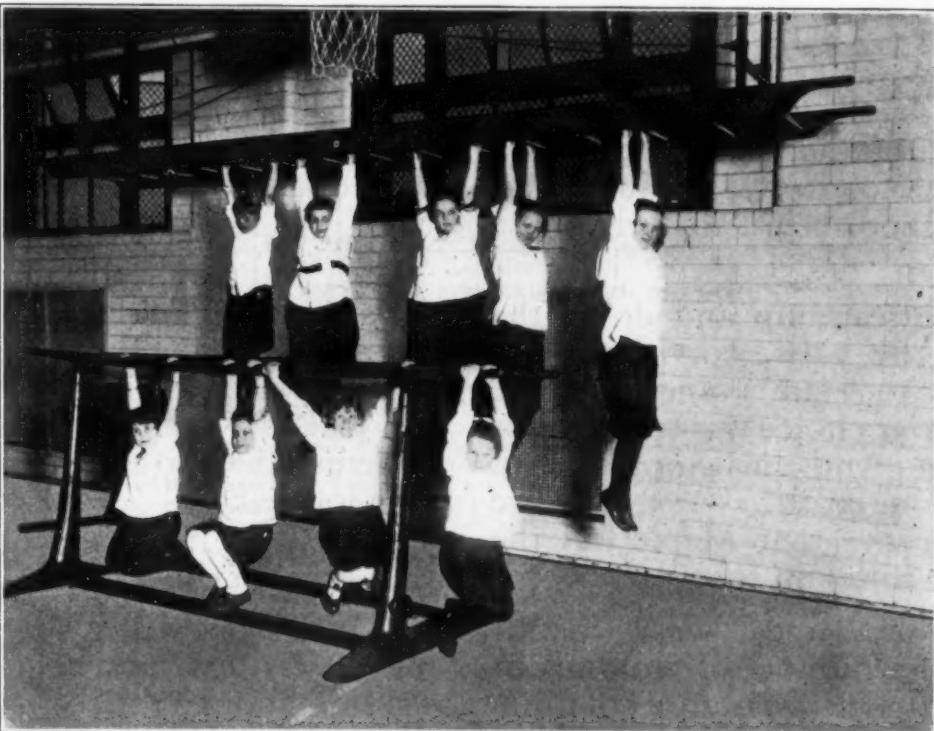
—New Bedford, Mass. The school board has under (Concluded on Page 87)

NARRAGANSETT STANDARD EQUIPMENT

GYMNASIUM + PLAYGROUND + STEEL LOCKERS



*School Children Sit Too Much;
They Need Stretching Exercise.*



The beneficial and joyful game of Hang Tag

Order Early



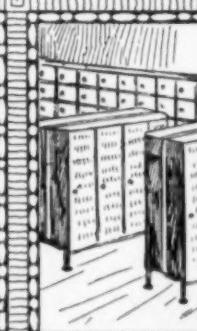
NARRAGANSETT MACHINE CO.

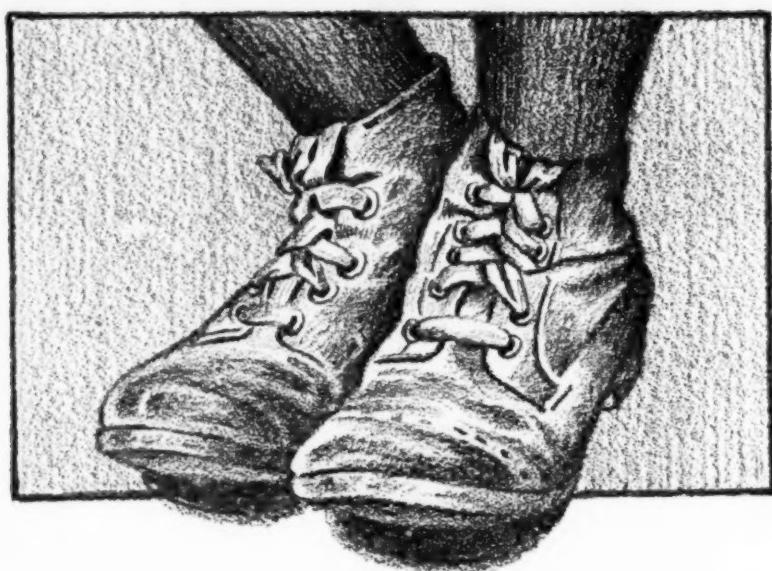


CHICAGO
1504 Monadnock Block

PROVIDENCE, R.I.
Established 1882.

NEW YORK
52 Vanderbilt Ave.





Millions of feet like these

Shuffling, scuffing, restlessly scraping—the feet of the typical American boy—are going to test the judgment of every school board that chooses a floor.

Under the seats, up and down the aisles, in the halls, corridors, and entrances, they are going to prove whether your choice was true or false economy. And in thousands of schools, from coast to coast, they are going to prove that Maple was the right floor to lay in schools.

For these shoes mean wear. Multiplied by the number of children in your school, and the number of times they file in and out of that school every year, they are going to grind away anything you can use, except the best.

But here is the advantage of Maple, proved over and over again in schools, in stores, in factories, in office buildings—everywhere that wear is essential. Maple polishes with use; it is so

tough-fibered and tight-grained that friction simply makes it smoother. It will outwear stone.

Maple and its kindred floorings, Beech and Birch, also mean cleanliness for your school room floors. They do not splinter or sliver, their smooth, hard surface sweeps clean and leaves no place for dangerous dirt to cling. These woods also afford a firm anchorage for desks.

You can check these facts when you talk with your architect. Your retail lumber dealer will gladly quote you prices. Write us for a book on another school room possibility—"Color Harmony in Floors."

MAPLE FLOORING MANUFACTURERS ASSN
1061 Stock Exchange Building, Chicago

Guaranteed Floorings

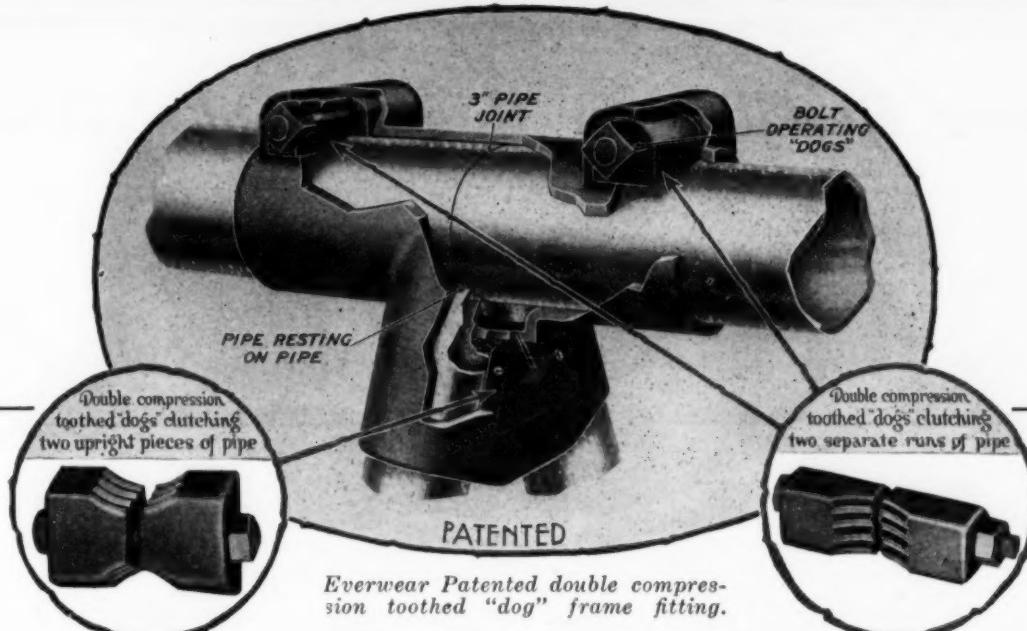
The letters **MFMA** on Maple, Beech or Birch flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture, and adhere to manufac-

uring and grading rules which economically conserve every particle of these remarkable woods. This trademark is for your protection. Look for it on the flooring you use.

MFMA

Floor with Maple Beech or Birch

We never forget
that the lives
of Children
depend upon
what we
build into
EVERWEAR
Playground
Equipment.



No accident
has ever occurred
on Everwear
due to the
failure of it
in any
part.
It is
SAFE.

Safety begins with the Manufacturer—

We invite the closest inspection of Everwear All-Steel Playground Apparatus. It embodies elements of SAFETY found in no other. Safety is dependent upon strength of details. If you will study it you will understand why it is SAFE, strong, durable and simple, yet has every play feature that delights the heart of a Child.

The Everwear patented double compression toothed "dog" frame fitting gives ten square inches of positive clamping surface for each pipe. There are no holes to drill nor set screws to rust or wear and become loose.

EVERWEAR ALL-STEEL PLAYGROUND APPARATUS IS SAFE
You should have our 52 page illustrated Catalog.

THE EVERWEAR MANUFACTURING COMPANY

SPRINGFIELD, OHIO, U. S. A.

Please refer your inquiry to Dept. "A."

(Concluded from Page 84)
consideration a building program calling for an expenditure of more than \$2,500,000.

—Approximately \$500,000 will be saved to boards of education in Ohio next year as a result of reductions in teacher retirement fund premiums authorized by the state teachers' retirement board. The reductions in rates have been based on the experience of the board during the three years the law has been in effect.

—Louisville, Ky. The school board during April was forced to ask the city council for \$182,000 to complete the school term.

—Pullman, Wash. The citizens have approved a special levy of five mills for the maintenance of the schools next year. The levy which is two mills less than last year is believed sufficient for the needs of 1923-24.

—Hillyard, Wash. The voters have been asked to approve a two-mill school levy which is necessary for the operation of the schools next year.

—Topeka, Kans. The school board plans the erection of a supply building to be erected adjacent to the manual training building. The structure will cost approximately \$15,000.

—Mark L. Thomsen, chairman of the citizens' committee investigating the schools of Cleveland, has declared that the schools cannot undertake a definite campaign for funds until it has given evidence that it can operate a \$100,000,000 school plant twelve months in the year. He declared that the present value of the land and buildings of the schools is more than \$100,000,000 but that the capital invested is operated only 180 or 188 days in a year. As a business proposition he believes this represents a large waste and loss of time. No organization working a fraction of the year can be as efficient as it can working all year round.

—Wilmington, Del. Recognizing the need for adequate housing for the schools, the board is planning an extensive building program. A request has been made for the authorization of a bond issue not to exceed \$500,000 for the erection of a modern school.

—Spokane, Wash. Supt. Orville Pratt, in his survey of building needs for next year, has asked that a third high school be erected to more adequately take care of the needs of high school students. Supt. Pratt urges the necessity of a survey to determine a site most convenient to the students from the Spokane Valley. The building should accommodate eventually a maximum of 1,200 students, but only one unit of a two-unit building need be constructed at first. Such a unit would house 600 students, would cost \$360,000 and would be erected in a shorter time.

—Ashland, O. On June first, the school board submitted to a vote of the people a building program requiring three years to complete. Bonds will be sold as needed to carry on the work of construction. The program includes the erection of a grade school, a

gymnasium building and the erection of two wings at the high school.

—The state of Illinois added 184 new schools to its list last year, according to statistics of the state education department. Of this number, 49 were high schools and seventeen were grade buildings of more than eight rooms.

—Charleston, W. Va. The school board has submitted to a vote of the people a bond issue amounting to \$1,350,000. The proceeds of the bond issue will be used for the erection of a senior high school, a junior high school, and several grade building units.

—Greenfield, Mass. The school board has voted \$60,000 for furniture and equipment for the new high school building which has been erected at a cost of \$450,000.

—Mineola, N. Y. At a special election of the voters, the school board has been authorized to spend \$130,000 for additions and improvements to the present school building.

—Oswego, N. Y. Contracts have been let for the erection of the new high school which is to cost \$270,000. Coffin & Coffin, New York City, are the architects.

—East Palatine, O. A bond issue of \$95,000 has been voted for a new twelve-room grade school.

—Columbiana, O. An addition will be built for the new high school building. New rooms will be ready for occupancy at the beginning of the next year.

—Fayetteville, N. C. A building program involving an expenditure of \$300,000 will be completed by the first of September. Included in the building program are a new high school, eight-room colored grammar school, two grammar school annexes for white children, and new steam heating plants.

Montclair, N. J., has been elected principal of the Trenton, New Jersey, State Normal School to succeed Dr. J. J. Savits. Mr. Bliss is a graduate of Dartmouth College and holds degrees from Dartmouth and from Columbia University.

Mr. Bliss has had an unusually successful series of superintendencies. At Brockton, Mass., and at Elmira, N. Y., as at Montclair, he was highly progressive in the promotion of art teaching in the entire teaching force. The selection of Mr. Bliss to fill a normal school principaship follows a custom quite general in New England.

The Orleans (La.) Parish School Board has elected Nicholas Bauer superintendent of the public schools of this city and the commission council has confirmed the appointment. He will begin his term of service July 1st.

Mr. Bauer succeeds Jos. Marr Gwinn, the present incumbent, who has been tendered and has accepted the superintendency of the schools of San Francisco, Calif. Mr. Bauer is the present secretary of the board and became associated with it, as assistant secretary, in 1901, having been advanced to the position of the instructors. He has been identified with the public schools of New Orleans, as pupil and teacher, for practically a life time, and is regarded as well qualified by both training and experience for the important position to which he has been elevated.

The board decided to create two assistant superintendents in lieu of one official who has heretofore aided the superintendent in exercising supervisory powers over school matters in this city, and to this end in electing Paul B. Habana to the post of secretary conferred upon him the additional authority of assistant superintendent, an office which he now holds. He is a former member of the boys' high school faculty, coming to the board in 1910.

August J. Tete, who has been elected as an additional superintendent has been connected with the public schools of this city since 1909. He is now a member of the boys' high school faculty.

—Supt. S. L. Hardin of Mission, Tex., has been reelected for another two-year term. Mr. Hardin has just completed his sixth year as head of the local school system. Mr. Hardin is active in the work of the Texas rotary clubs and at the last district conference was recommended for the office of district governor.

—Supt. Charles E. Davis of Quanah, Tex., has been reelected for the next year, at an increase in salary.

—Mr. S. B. Underwood, who has completed two years of service at Raleigh, N. C., has been given a year's leave of absence because of ill health. Mr. Underwood goes to Greenville, next year as supervisor of practice teaching. His place is being filled temporarily by Mr. H. F. Srygley.

—Supt. Charles Henry of Pullman, Wash., has been reelected for his fifth term, at a salary of \$3,600 per annum.

PERSONAL NEWS OF SUPERINTENDENTS

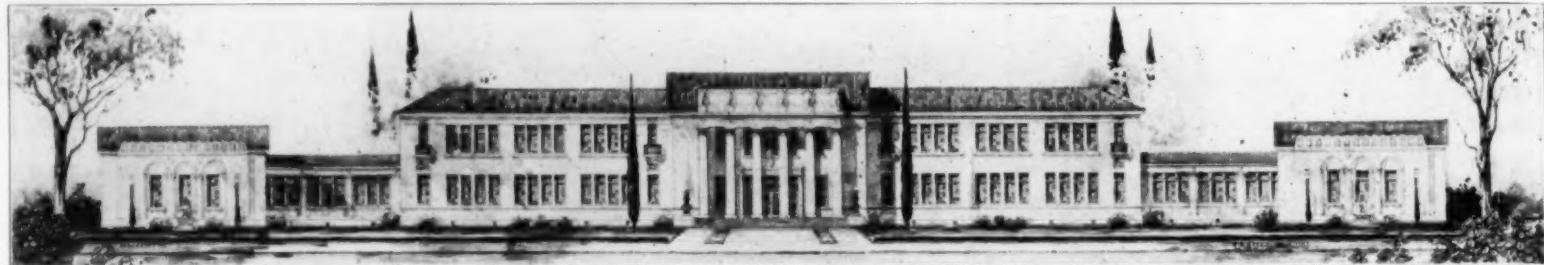
—Mr. B. B. Baker, of Rusk, Tex., has been elected superintendent of schools at Fairfield, Ala. Mr. Baker entered upon his duties the middle of June.

—Tallahassee, Fla. W. H. Tyler, of Pensacola has been appointed by Governor Hardee, to be superintendent of public schools of Escambia County.

—Jackson, Ga. Prof. R. I. Knox, formerly of Boston, was reelected to head the Jackson schools.

—Mr. Don C. Bliss, superintendent of schools at

No Summer Repairs on this School's Drain Lines



The Napa, California, High School

William H. Weeks, Architect



This high school, in the years to come, never will require a tearing out of drain pipe from the laboratory because the acids wasted into it have corroded and eaten it away.

There never will be stained and disfigured walls from leaking pipes.

It is insured against all such damage and expense because it is Duriron equipped, and the Duriron drain pipe in this school will last, wholly unaffected by the acids used in the chemistry and science courses, as long as the school itself.

Insure your new school against this needless damage and endless repairs, by insisting that the laboratory drain lines, traps, exhaust fans, etc., be of Duriron, the *Universal Acid Resistant*.

Make your repairs on the old school permanent by replacing the drain lines from the laboratory with everlasting Duriron.

Our handbook—DURIIRON ACID-PROOF DRAIN PIPE—sent on request.

The Duriron Company, Dayton Ohio

—Mr. L. G. Schussman, for the last ten years superintendent of schools at Kaukauna, Wis., is not a candidate for reelection. Mr. J. F. Cavanaugh has been elected to take the place of Supt. Schussman the coming year. Mr. Schussman's service at Kaukauna covers a period of fourteen years. He was appointed in 1901 as city superintendent of schools, in which capacity he had served for the last ten years. He also filled positions at Sheboygan and in the County Training School of Green Lake County.

—Supt. George R. Ray, Beaver Dam, Wis., has been reelected head of the schools for the coming year.

—Supt. J. F. Waddell of Antigo, Wis., has been reelected at an increase over the past year.

—A. A. McDonald was reelected superintendent of the Sioux Falls, South Dakota schools.

—Chas. M. Gill, superintendent of the Quincy, Ill., schools for the past seven years announced that he would not be a candidate for reelection.

—Byron W. Hartley, assistant superintendent, will succeed Zenos E. Scott as superintendent of the Louisville, Ky., schools. His appointment is to become effective September 1st. Mr. Hartley is a graduate of the University of Chicago and Columbia University and became assistant superintendent under Mr. Scott three years ago.

—Mr. Walter S. Young has been elected superintendent of schools at Worcester, Mass., at a salary of \$6,000.

—Supt. H. H. Eelkema, of Groton, S. D., has been reelected for another year. During Mr. Eelkema's incumbency he has been successful in raising the standard of the schools, in coordinating the work of the pupils and teachers, and in creating a harmonious organization of far-reaching value.

—Supt. W. A. Walls of Kent, O., has been reelected for a term of three years, at a salary of \$4,000 per annum.

—Supt. Frank W. Ballou, of Washington, D. C., has been reelected for a three-year term. During Mr. Ballou's incumbency, there has been evident a steady upward growth not only in his grasp of the details and program of education but also in his own expanding influence and reputation as an educator in the United States.

—Supt. A. S. Faulkner of Norman, Okla., has been reelected for a fifth consecutive term.

—Mr. Ernest G. Ham, formerly superintendent of the Rutland North District, Vermont, has accepted the superintendency of a new school district comprising seven school districts and 52 teachers. Mr. Ham will make his headquarters at Brandon.

—Mr. R. C. Bowton of Clifton Forge, Va., has been elected superintendent of schools at Alexandria. Mr. Bowton entered upon his duties July first.

—Mr. O. L. Neal of Nampa, Ida., has accepted the superintendency at Gooding.

—Mr. P. A. Stierwalt, of Litchfield, Ill., has been elected superintendent of schools at Fairfield.

—Mr. G. W. Gayler, of Canton, Ill., has accepted a position as professor of education at the Western State Teachers' College, Macomb, Ill.

—Supt. W. T. Harris of Elgin, Ill., has been reelected at a salary of \$5,500 a year.

—Supt. W. B. Thornburgh of Dover, Del., has been reelected for his fourth consecutive term.

—Supt. C. W. Hodge of Port Angeles, Wash., has been reelected for a two-year term.

—Mr. H. S. McCoy of LaRue, O., has been elected superintendent of the Snyder Park Junior High School at Springfield. Mr. E. D. Maurice has been elected to fill the vacancy at LaRue.

—Mr. George O. Smith has been elected superintendent of schools at Princeton, Ill., to succeed C. B. Smith, who goes to Pekin.

—Mr. R. L. Spires of Normal, Ill., has been elected superintendent of schools at Paxton, at a salary of \$3,000 per annum.

—Mr. C. B. Smith, for the last four years superintendent of schools at Princeton, Ill., has accepted the superintendency at Pekin, at an increased salary.

—Mr. C. C. Byerly, of Princeville, Ill., has been elected superintendent of schools at West Chicago, at a salary of \$3,300.

—Supt. R. G. Jones of Cleveland, O., has been reelected for a five-year term, at a maximum of \$12,000 a year, an increase of \$2,000 over his present salary. Mr. Jones is the first superintendent in Cleveland to receive a five-year term.

—Mr. J. P. Norton, for the past three years superintendent of schools at Three Oaks, Mich., died suddenly on May 19th following a stroke of apoplexy.

—Mr. C. C. Underwood of Gainesville, O., has been elected superintendent of schools at Crawfordsville, Ind. Mr. Underwood succeeds Miss Anna Willson, who retired on June first.

—Mr. C. C. Justus of Wartburg, Tenn., has been elected superintendent of the high school at Clinton. Mr. Justus succeeds Curtis Gentry who goes to Lenior City.

—Mr. W. R. Heistand, of Marion County, O., has been appointed director of child accounting at the State Education Department, Columbus, O.

—Supt. A. L. Simon of East DePere, Wis., has been reelected for another year.

—Mr. DeBolt of Bismarck, N. D., has been elected superintendent of schools at Slayton, Minn.

—Mr. K. D. Miller of Vinton, Ia., has been elected superintendent of schools at Fort Dodge, to succeed L. H. Minkle.

—Mr. E. L. Fisher of LaBelle, Mo., has accepted the superintendency at Edina.

—Mr. W. J. Crawford has been elected superintendent of schools at Reed City, Mich., to succeed W. W. Gunser.

—Supt. D. S. Spencer of Monroe, Mich., has been reelected at a salary of \$4,500.

—Mr. T. H. Cobb has been elected superintendent of schools at Mt. Carmel, Ill., at a salary of \$3,000.

—Dr. Stratton D. Brooks, former president of the University of Oklahoma, has been appointed as president of the University of Missouri. Dr. Brooks who is a native Missourian, is a graduate of the Michigan State Normal College and the University of Michigan. He holds degrees from Harvard University, Colby College, and Kingfisher College.

—Mr. H. D. Anderson has been elected superintendent of schools at Barry, Ill.

—Mr. H. R. Gannan of Mound City, Mo., has been elected superintendent of schools at Maysville.

—Mr. J. F. Pinkerton of Rushville, Ill., has been elected superintendent of schools at Astoria.

—Mr. R. J. Kiefer of Bellefontaine, O., has accepted the superintendency at Niles, at a salary of \$4,400.

—Mr. S. C. Richeson of Hopkins, Mo., has been appointed state high school inspector for Missouri.

—Supt. J. W. Browning of Washburn, Wis., has been reelected at a salary of \$2,800.

—Mr. M. S. Beam of Newton, N. C., has been elected superintendent of schools at Albemarle, to succeed J. P. McIver.

—Mr. M. A. Sams, of Scottsbluff, Neb., has been elected superintendent of the consolidated schools at Brock.

—Supt. D. B. Hoffman of East Moline, Ill., has been reelected to serve his seventeenth term.

—Supt. D. F. Nichols of Lincoln, Ill., has had his salary increased from \$1,500 to \$2,000.

—Supt. Charles Bruner of Kewanee, Ill., has been reelected for the coming year.

—Supt. D. Walter Potts of East St. Louis, Ill., has been reelected at a salary of \$6,500.

—Supt. Hugh R. Hich of Delphos, O., has been reelected for a four-year term, at a salary of \$3,800.

—Mr. Harry Coultrap has been elected superintendent of the west side schools at Aurora, Ill.

—Mrs. Hodges of Huron, Ia., has been elected superintendent of schools to succeed her late husband.

—Mr. J. F. Nelson has been elected superintendent of schools at Gering, Neb.

—Mr. E. C. Fisher of Rock Island, Ill., has been elected superintendent of schools at Peoria, at a salary of \$7,500.

—Supt. R. W. Solomon has been reelected for a three-year term, at a salary of \$5,200.

—Dr. James Sullivan, formerly state historian for the New York State Education Department, has been appointed assistant commissioner of education. Dr. Sullivan succeeds Charles F. Wheelock, who retired on July first, after a half century of educational work.

Dr. Sullivan has been identified with the field of secondary education for many years. He is a graduate of Harvard University and holds the degrees of master of arts and doctor. He resigned the principalship of the Boys' High School, Brooklyn, N. Y., in 1916, to become state historian.

(Concluded on Page 91)

INDIANA LIMESTONE
THE NATION'S BUILDING STONE

A TRIBUTE

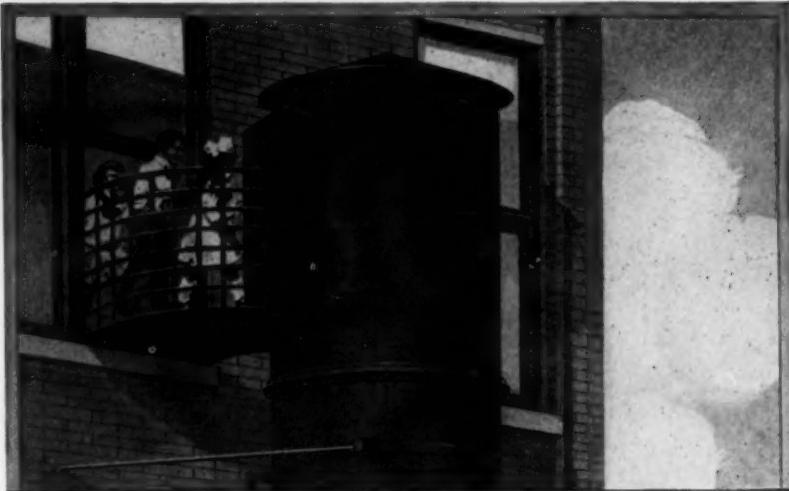
In the primeval ages,
Before our time began,
When Nature first provided for
The coming race of man,
She planned the rock to shelter him,
To give him home and hearth,
That noble buildings might arise
To glorify the earth.

And best of all her efforts,
Best of the living rock,
That stands the storm and stress of Time
Nature's building block,
Is Indiana Limestone.
Its sturdy beauty stands,
"Like frozen Music"—tribute to
The master-builder's hands.

For noblest public structure, or
For simple dwelling-place,
Its all-enduring beauty,
Time nor Tempest can efface.

OLIVIA BARTON STRONG
WOMEN'S ADVERTISING CLUB
OF CHICAGO

Indiana Limestone Quarrymen's Association
Bedford, Indiana



Prepare to save their lives now

SIXTY-TWO unrecognizably burned bodies of little school children were buried at Camden, S. C., in one grave. A Dow Spiral Slide Fire Escape would have saved them all.

THE DOW CO.

Incorporated

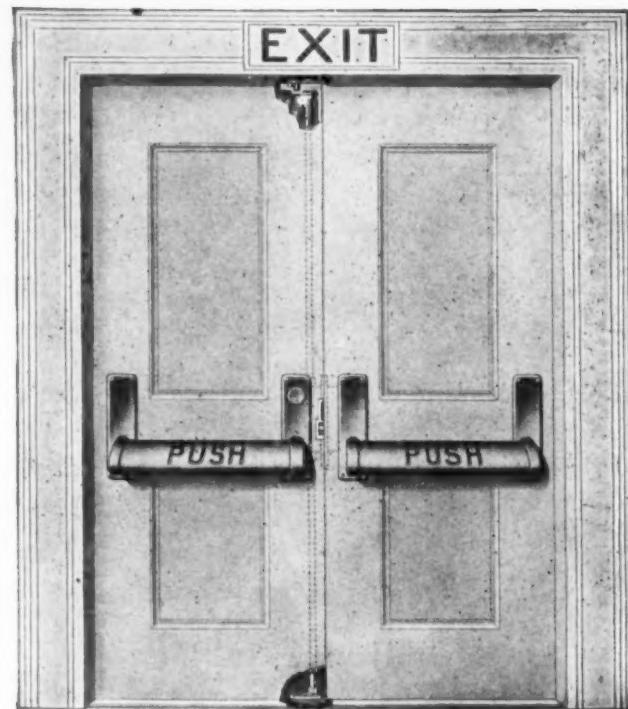
300 N. Buchanan St.

LOUISVILLE, KY.



Quick exit assured Safety provided

Members of school boards and other officials on whom the responsibility rests should make full provision for protection to life in case of panic by the use of this safety device.



SARGENT

Reg. U. S. Pat. Off.

Fire Exit Door Bolts

as illustrated above, are attractive in appearance, strong in construction and quick in action. The construction is such that in operating the push bar the hands or arms cannot be caught between the bar and the door.

They have a wide push bar which projects only $2\frac{1}{2}$ inches from the surface of the door, permitting the door to swing wide open so as not to obstruct passage through the doorway. Slight pressure on the bar at any point will release the bolts instantly. All edges and corners on the bars and brackets are carefully rounded, eliminating all possibility of wearing apparel becoming accidentally caught.

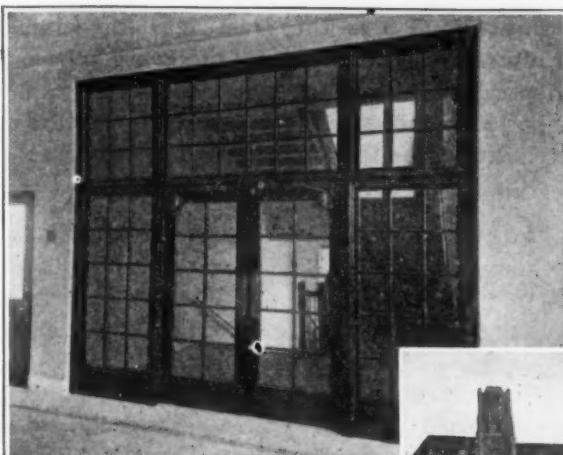
Sargent Fire Exit Door Bolts,
Locks and Hardware are sold by
representative dealers in all cities.

SARGENT & COMPANY, Manufacturers
New Haven, Conn.

New York

Chicago

DAHLSTROM



Dahlstrom smoke screens
in the Coventry School,
Cleveland, Ohio



DRAFT—SMOKE—FIRE

One of the best methods of preventing fires from spreading is to prevent drafts. Halls and corridors are usually favorite haunts of fire because there is usually plenty of draft there.

The smoke and fire screen has been devised to prevent these drafts. Dahlstrom Hollow Metal Smoke Screens go a little farther by checking a fire that gets to that point.

They are metal—there is nothing in them to burn.

Dahlstrom Metallic Door Co.

489 Buffalo Street, Jamestown, New York

NEW YORK
25 Broadway

CHICAGO
19 So. La Salle Street

DETROIT
1331 Dime Bank Bldg.

Local representatives in principal cities.

(Concluded from Page 88)

—Supt. W. P. Horton of Springfield, Tenn., has been reelected for another year.

—Supt. Roy Harman of Cloverdale, O., has been reelected for a two-year term.

—Mr. John W. Moore has been elected superintendent of schools at East Palestine, O. Mr. Moore was formerly head of the school system of Columbiana County.

—Supt. E. L. Hays of Hartselle, Ala., has been reelected for the next year.

—Supt. J. B. Stout has been reelected head of the schools at Shabbona, Ill.

—Mr. E. G. Doudna of Wisconsin Rapids, Wis., has accepted a position at Madison for the next year.

—Supt. Otis G. Wilson of Fairmont, W. Va., has been reelected for another term of two years.

—Mr. O. R. Stanfield of Martinsville, Ill., has been elected superintendent of schools at Newton.

—Supt. C. E. Chrane of Boonville, Mo., has been reelected for the next year.

—Mr. John Moss has been elected superintendent of schools at Paris, Ill.

Mr. C. C. Swain, of the Iowa Teachers' College, has become president of the normal school at Mayville, N. D.

—Supt. J. D. Darnall has been reelected at Geneseo, Ill., for the next year.

—Mr. C. C. Craig of Hartsville, Mo., has been elected superintendent of schools at Washburn.

—Mr. Geo. W. Brown has been elected superintendent of schools at Medora, Ill., for the next year.

—Mr. Arthur Laidlaw of Whitehall, N. Y., has been elected superintendent of schools at Ogdensburg.

—Supt. J. V. Walvoord of Sheboygan, Wis., has been reelected for the next year.

—Supt. L. A. Mahoney of Moline, Ill., has been reelected for the next year.

—Supt. D. N. Roberts of Aledo, Ill., has been reelected for the next year.

—Supt. W. E. Arter of Cambridge, O., has been reelected for a two-year term.

—Supt. D. W. Moody of Huntingdon, Tenn., has been reelected for another year.

—Supt. P. L. Collier of Richmond, Mo., has been reelected for another year.

—Supt. H. A. Perrin of Joliet, Ill., has been reelected at a salary of \$6,000 a year.

—Supt. H. F. Munch of Monmouth, Ill., has been reelected for the next year.

—Supt. A. M. Fourt has been reelected as head of the schools at Vandalia, Mo.

—Supt. S. K. McDowell of Bloomington, Ill., has been reelected for another year.

—Mr. H. L. Crookshank of Maysville, Mo., has been elected superintendent of schools at Albany.

—Mr. George Stickney of Loraine, Ill., has been elected superintendent of schools at LaPrairie, Ill.

—Mr. L. V. Pepple has been elected superintendent

of schools at Grayville, Ill., to succeed C. H. Mosberger.

—Supt. R. W. Fairchild of Fond du Lac, Wis., has been reelected for a term of three years, at an annual salary of \$4,500.

—Mr. H. A. Wann of Arcadia, Ind., has been elected superintendent of schools at Lapel.

—Supt. Harry L. Ryan has been reelected as head of the schools at Neoga, Ill.

—Mr. Orville Craig of Ligonier, Ind., has been elected superintendent of schools at Columbia City.

—Mr. A. N. Weiser of El Dorado, Mo., has been elected superintendent of schools at Osceola.

—Mr. Leland Hobach of Golden City, Mo., has been elected superintendent of schools at Windsor.

—Mr. A. L. Spooner of Orange City, Ia., has been elected superintendent of schools at Rockwell City. Mr. Spooner succeeds C. L. Jackson resigned.

—Mr. John Steiner has been elected superintendent of schools at Quincy, Ill., to succeed Charles M. Gill.

—Mr. George S. Gorow has been elected superintendent of schools at Fruitland, Ida.

—Mr. Lawrence H. Van den Berg, superintendent of schools at Grand Haven, Mich., has been appointed president of the New Paltz State Normal School at New Paltz, N. Y. With the appointment goes a salary of \$5,000 and a fine residence.

—Mr. R. L. Johns of Piedmont, Mo., has been elected superintendent of schools at Bloomfield.

—Mr. W. O. Moore of Mt. Gilead, O., has been elected superintendent of schools at Upper Sandusky.

—Dr. Shelton Phelps, of Peabody College, Nashville, Tenn., has been appointed a member of the State Board of Education.

—Mr. A. Frampton of Celina, O., has been elected superintendent of schools at Bellefontaine, at a salary of \$3,100. Mr. Frampton succeeds R. J. Kiefer, who has accepted the Niles superintendency.

—Mr. A. C. Saunders of Findlay, O., has been elected superintendent of schools at Bradford.

—Mr. R. E. Bright has been unanimously reelected as superintendent of schools at Humboldt, Tenn.

—Mr. Wm. A. Hough has been elected superintendent of schools at Belleville, Ill.

—Supt. Monroe Melton has been reelected for a fourth term as superintendent of the Hall Township High School at Spring Valley, Ill., at an annual salary of \$4,500.

—Mr. E. M. Blevins of Rosalia, Wash., has been elected superintendent of schools at Ritzville.

—Mr. John W. Goddard has been elected superintendent of schools at Garfield, Wash.

—Mr. W. H. Durkee of Winfield, Ia., has been elected superintendent of schools at Corning.

—Mr. A. W. Bevers has been reelected superintendent of schools at Claremont, Okla.

—Superintendent Edwin A. Ladd of Batavia, N. Y., was found dead in a cistern at his house. He has been in ill health for some time due to worries about the

school situation. The pupils at the high school recently went on a strike because the board of education had refused to reappoint a popular teacher.

—C. R. Reed was reelected superintendent of the Akron, Ohio, school for a term of five years at a salary of \$9,000 a year and F. D. McElroy, assistant superintendent at \$6,000 a year.

—Charles R. Foster, a high school principal, succeeds Clyde H. Garwood as assistant superintendent of the Pittsburgh, Pa., schools. Mr. Garwood has accepted the superintendency at Harrisburg, Pa.

—A. S. Martin has accepted the superintendency of the Haddonfield, N. J. schools.

—F. H. Harris, high school principal, was elected superintendent of the Greenfield, Ohio, schools. B. R. Buckworth, science teacher, was elected to the high school principalship.

—Mr. William Mather Lewis, of Chicago, Ill., has been elected president of George Washington University. Mr. Lewis is a graduate of Lake Forest College, where he received the A. B. degree in 1900.

—Mr. A. C. Saunders, of Findlay, O., has been elected superintendent of schools at Bradford.

—Mr. A. E. Malotte of Plattsburgh, Mo., has been elected superintendent of schools at Kingston. Mr. Malotte received his degree from the State Teachers' College at the last commencement.

—Mr. Charles E. Marshall of Oakland City, Ind., has been elected superintendent of schools at Clark, Mo.

—Dr. R. G. Russell of St. Louis County, Mo., has been given the degree of doctor of pedagogy by the Ohio Northern University, in recognition of his work on arithmetic texts and also his work as an educator.

—Supt. A. F. Hixson of Urbana, O., has been reelected for a three-year term, at salaries of \$3,200 the first year, \$3,300 the second and \$3,400 the third year.

—Supt. C. C. Smith of Tippecanoe City, O., has been reelected for a term of three years.

—Mr. W. A. May of Casey, Ia., has been elected superintendent of schools at Orange City.

—Mr. Wm. Gardner, superintendent of schools at Huntsville, Mo., has retired from the school field to enter business.

—Asst. Supt. J. Ralph Williford of Oregon, Ill., has accepted the superintendency of the New Milford Consolidated schools.

—Mr. M. M. Berry of Martins Ferry, O., has been elected superintendent of schools at Berea.

—Mr. Melvin A. Rice of Lombardo, N. J., has been elected president of the New Jersey State Board of Education for a seventh consecutive term.

—Supt. C. W. Hodge of Port Angeles, Wash., has been reelected for a two-year term.

—Mr. Claude Robey, superintendent of schools at Mesita, Colo., died on May 13th from injuries received in an accident. He was a graduate of the University of Denver and of the Colorado Normal School at Greeley.

FOUR IN ONE *Light*



The Ideal Light for Schools

THE Four-In-One is the ideal light for schools. It throws the light down on the work where it belongs, instead of in the eyes where it doesn't belong. Its soft, perfectly diffused light is totally free from glare. Its light source is the Mazda "C" lamp, the most economical light known.

If you plan installing modern fixtures, our lighting experts, who will give individual study to your particular needs, are at your service. They will determine whether your present lighting is sufficient in both quantity and quality, and whether it is properly toned and correctly distributed. You can rely absolutely on their recommendations as to just what changes should be made in order to relieve eye strain which results from incorrect lighting and causes defective eyes.

Send for our booklet showing the various styles of the Four-In-One Light and describing its principle in detail.

Our service department will gladly furnish architects or school boards with complete blueprints and specifications showing model equipment for the proper lighting of every location.

THIS SERVICE IS FREE

L. PLAUT & COMPANY
432 East 23rd Street New York

Gwinn Will Run Schools.

Apropos of the appointment of Joseph M. Gwinn of New Orleans, La., to the superintendency of the San Francisco schools the editor of the Call of that city remarks: "Now comes the real test of the new system of administration. The former system was abolished by vote of the people on the ground that divided authority between an independent elected superintendent and a board which actively undertook direct administration of the schools was an obstructive anomaly.

"The people replaced this with a system under which the Board of Education appoints a superintendent and puts the administration of the schools into his hands.

"Now this plan is a very different thing from the old. The test of it is in the first instance really a test of the Board of Education. The board has before it a thing not easy to do. It has been accustomed to handling itself the administrative detail of running the schools.

"To fulfill the intent of the new system it must now put this all in the hands of the superintendent and confine itself to holding him responsible for results and the manner in which they are obtained.

"In other words it must cease dealing directly with schools and teachers and deal only with the superintendent. Else the superintendent will not be the executive manager of the school department but only an errand boy.

Want to Retain Superintendent Kiefer.

Superintendent R. J. Kiefer of Bellefontaine, Ohio, received an attractive offer to locate in another city. In order to induce the board of education to retain him at a high salary the friends of education of that city inserted an advertisement in the local newspapers asking the citizens to confer with school board members as to their attitude on the subject.

The advertisement gives the names of Dr. Clyde Swartzman, W. S. Jones, Edwin Colton, William Weiser and Mrs. M. W. Ginn, members of the board, together with their telephone numbers for the convenience of those who wish to communicate with them.

Construction of Maxwell Memorial.

A permanent memorial is to be erected in memory of the late Dr. William H. Maxwell,

former superintendent of the New York City schools.

As finally adopted by the memorial committee and approved by the board of trustees of the museum, the design calls for a memorial in Indiana limestone and bronze, to extend the full width of the hall, 51 feet. There will be three divisions, or panels. A sitting figure of Dr. Maxwell, in bronze, 6½ feet high, will occupy the center, flanked on either side by murals in stone 9x11 feet. The murals will represent ancient and modern education.

This ambitious project was styled by the sculptor, Charles E. Tefft, as "the largest memorial of its kind in America." Mr. Tefft declared that, if no other purpose be accomplished, the construction of the memorial will prove that New York City knows how to appreciate the achievements of its great educators.

It is expected that the memorial, which will occupy an entire wing of the new School Service building of the American Museum of Natural History, will be completed within the next eighteen months.

AMONG BUSY SUPERINTENDENTS.

—Ernest E. Cole, assistant superintendent of the Chicago schools, resigned when the new school board went into office, and asked that he be assigned a principalship. It was alleged that he had taken part in the school board controversy.

—E. C. Fisher succeeds A. W. Beasley as superintendent of the Peoria, Ill., schools with a salary increase from \$6,000 to \$7,500. Mr. Beasley had been connected with the Peoria schools for a period of forty-five years.

—Despite the fact that the school board elections at Dover, N. H. of last year were influenced by Mayor Waldron's fight to secure the dropping of Jacob E. Wignot as superintendent the school board voted his reappointment by the state department of education. His salary was fixed at \$3,500.

—When the school board of Holyoke, Mass., increased superintendent William R. Peck's salary from \$4,400 to \$5,500 the city auditor refused to recognize the increase. He holds that the school board was not authorized to make it.

—Mrs. Anna M. Barkow is the newly elected superintendent of Van Buren County, Iowa.

—Upon his departure from Worcester to accept the superintendency of the Lynn, Mass., schools the school committee of the former city gave Harvey S. Gruver the following farewell word:

"In his direct relations with the members of the committee he has by his unfailing courtesy, tact and fairness won our confidence, esteem and friendship. Our best wishes follow him to the position to which he goes."

—Superintendent F. R. Converse of Beloit, Wis., was reelected at a salary of \$4,800. This was a salary increase of \$300 which Mr. Converse declined believing that the finances of the board did not warrant the same.

—The attempt by members of the Oakland, Calif., school board to charge superintendent Fred M. Hunter with irregular use of liberty bonds in the care of his department, failed.

—The Illinois association of school supervisors in a resolution defends the Supreme Court of the United States against the attacks made upon the same by national legislators.

—John Walvoord was reelected superintendent of the Sheboygan, Wis., schools after a deadlock which continued over three school board meetings.

—Rather than let a hostile school board majority consider his reelection I. S. Winner retired from the Erie County, Ohio, superintendency.

—The newest and most modern schoolhouse at Oak Park, Ill., has been named after William H. Hatch, who served the city as superintendent for twenty-five years. He now lives in retirement on a farm in Minnesota.

—The radio will have a place in the schools, says William L. Ettinger, superintendent of schools, New York City. He illustrates by saying: "Famous men frequently visit the city, and they are sometimes willing to address school assemblies, but only one or two schools are fortunate enough to hear them. Radio communication would make it possible for all the school assemblies in the city to hear such a speaker if he were stationed at school headquarters. When one considers that schools all over the country may listen in at the same time, the possibilities for hearing great speakers seem to be almost unlimited."

JUST NATURALLY —



D. A. BOHLEN & SON, Architects, Indianapolis

the architect for ST. MARYS OF THE WOODS, Terre Haute, Ind

CHOOSE PRESSED LENS GLASS!

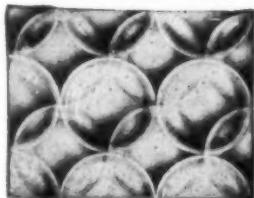
Specialists in buildings such as this are specifying PRESSED LENS GLASS as standard equipment. Why? It is the only glass whose principle of multiple-refraction of light rays, through the overlapping lens medium, makes possible a scientific redirection of all daylight rays, eliminates all glare, and makes unnecessary the use of window shades.

PRESSED LENS GLASS is also most ornamental, wherever used, while solving, too, many a harrassing problem arising from daylight reflection, window to window in inner and outer courts. Its easy cleanability insures the original sparkle and lustre—with mighty little maintenance cost.

Our Service Department is ready to help school executives and architects in their problems of daylight refraction and reflection. These problems are many which are finding in PRESSED LENS GLASS their solution.

ONE THIRD THE COST OF PLATE GLASS

Stocked by leading glass jobbers everywhere



MANUFACTURERS GLASS CO.

Sales Offices

1224 First National Bank Building
CHICAGO, ILLINOIS

PRESSED LENS GLASS is made in sheets up to 48" by 100" and can be had in 4"x4" tiles glazed in metal bars—easily obtainable the country over.



FOR THE CROP THAT NEVER FAILS

School children have increased faster than available school space. They are the crop that never fails. Each year there are 250,000 more than the last.

Overcrowding is common. Makeshift rooms in basements, halls and converted residences are frequent.

Even where there is enough room, the buildings are often so old, badly lighted, poorly heated, unventilated and unsanitary that they should have been replaced years ago.

Both in the cities and in the country there are good reasons for the failure of the schoolboards to provide proper schoolhouses.

The Schoolboards' Problem

In the cities, increases in the number of school children are often temporary in certain localities, and the board feels that it should wait before building additional buildings of brick or stone.

In the country, the automobile road building and the resulting likelihood that districts will be combined sooner or later and that the rural schools will be converted into graded schools, make the boards hesitate to build permanent new schoolhouses.

In both city and country there is, in addition, the building problem itself. Materials are up. Building labor is expensive and hard to get. And, most troublesome of all at times, building is always slow. Many months are required to erect school buildings in the ordinary way.

Circle A Schools

Circle A Schools do away with all these difficulties.

For many years, and to the satisfaction of hundreds of schoolboards, they have provided roomy, well-lighted, well-ventilated substantial schoolrooms.

They can be shipped in one or two weeks. They are so substantial that they meet every requirement of modern school administration. If buildings of brick or stone should be erected later, or if the need for the rooms provided by Circle A buildings should disappear, the Circle A School can be sold for other purposes or taken down and erected elsewhere.

It would make a nice cottage for some one—or an office—or a shop.

Send us YOUR Requirements

Use the coupon to send for copies of the 1923 edition of the Circle A School catalogue.

On the same coupon you can list your possible requirements so that we can quote prices.

Fill it out today—or if you are in a hurry, wire us at our expense.

CIRCLE A PRODUCTS CORPORATION
614 NEIL STREET.

Gentlemen:

Please send me catalogues of Circle A Schools.
(insert number wanted)

The number of rooms we may need is.....

The number of pupils to be accommodated is.....

The next meeting of our schoolboard is on.....

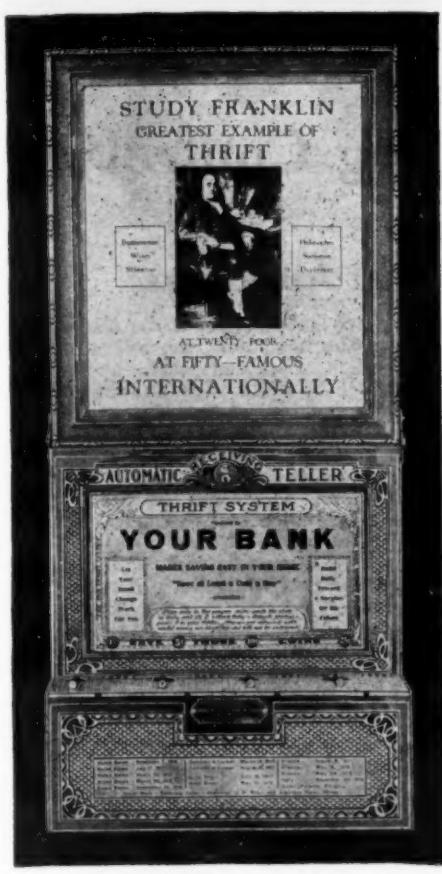
Name.....

Address.....

Official Title.....

CIRCLE A PRODUCTS CORPORATION
A Subsidiary of the Alexander Lumber Co.
Champaign, Illinois

CIRCLE A SCHOOL HOUSES



A change of poster each week drives home the thrift appeal.



American Banking Machine Corporation

Executive Offices
Saginaw, Mich.

62 Cedar St.
New York

Wrigley Bldg.
Chicago



INTELLIGENCE TESTS AT CANASTOTA, NEW YORK.

At Canastota, N. Y., during the past school year, a study of group intelligence tests was made to determine whether the tests actually measure native intelligence or whether it measures some other things in addition. According to a report by Supt. A. J. Williams, it has been proven conclusively with a high degree of accuracy that the tests indicate the ability of children to do school work.

For example, during the years 1920-22, extra promotions were allowed to 250 pupils. These pupils were promoted entirely on their showings in the group intelligence test. At the end of a two-year period, only four of these pupils had failed to keep up with the grade in which they had been placed.

During the last half year, practically every pupil from the third grade to, and including the high school, was given an intelligence test. As a result of the tests, over 100 pupils were given extra promotions last fall. There will be saved to the pupils of the schools about one hundred years during the school year.

The pupils given promotions last fall were selected almost entirely on the basis of their scores in the intelligence tests. The last list of pupils was made up of those who had ability above that required for the grade in which they were located, and who had done work above the average of the class as shown by standings during the first quarter. The purpose was to show pupils that they must work for extra promotions no matter how brilliant they might be.

The greatest advantage of the extra promotion is the interest aroused in the whole school. At the time of extra promotions, the pupils are

told exactly why these pupils got their chance, and that high-class work will give others in the class the same opportunity next time. Each pupil in the class works more earnestly and there is exhibited an unusual interest in school work because each one knows it is to his advantage to make the most of his opportunity.

At the same time that the extra promotions were given in the other grades, a special class was started in the fifth grade. This class was made up of thirty pupils selected from the three fifth grades, on the same basis as that used for the extra promotions. These pupils were allowed to advance as rapidly as they desired. At the present time, they have covered all of the fifth grade work and part of the sixth grade course in some subjects, and most of the fifth grade work in other subjects. This class will easily finish the sixth grade this year. Beginning next fall, some of them will be ready for the seventh grade and some for the eighth grade. All of these pupils should be ready for high school by a year from next fall.

In the eighth grade, the beginning class showed up so well in the tests that it was decided to urge them on to finish the grade in January instead of June. There were 21 pupils in the class, ten girls and eleven boys. Of this number, four boys and one girl finished all the preliminary subjects and entered high school. Four more passed all but one of their subjects and took three high school subjects the last half, while eight have taken two more preliminary subjects and two high school subjects. Two were ill and unable to take the examinations, while two failed to pass the examinations.

The promotion lists were made up by the teachers on the basis of the actual work done in the grade for the semester. Every pupil promoted last fall was again promoted at the end of the semester, and has, therefore, completed a year's work in the half year. Several pupils had averages of more than 90 per cent in class-work for the semester.

It is pointed out that the extra promotion plan takes care of the exceptionally bright pupils in the class. In the past, the brightest pupils have been allowed to loaf, doing only a half of the work or a third as much work as they were actually capable of doing. In a large class, the teacher hasn't time to see that these bright pu-

pils are kept busy. As long as they get their lessons well, and give her little trouble, she must be content. In this way, such pupils develop habits of loafing which handicap them for life.

The entire work was carried out under the supervision of Supt. A. J. Williams of the Canastota schools, with the splendid cooperation of the teachers, both in the grades and high schools. The entire clerical work involved in the correction of papers and the tabulation of the results, was done by the teachers mostly on their own time.

SUPPORT THE ALL-YEAR SCHOOL.

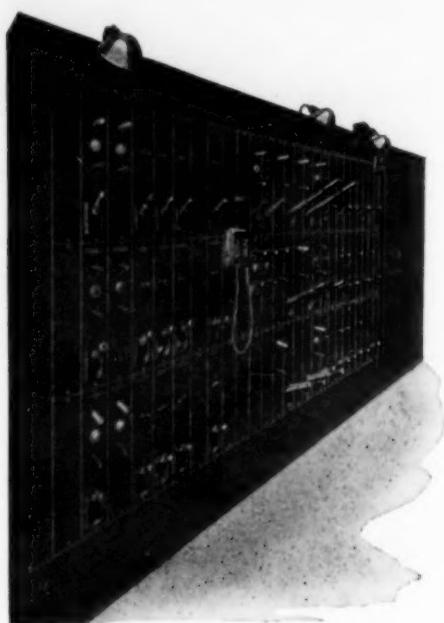
"Suppose your school plant accommodates at present 10,000 pupils attending nine months of the year, the plant being idle the other three months. The capacity of the plant is 10,000x9 or 90,000 pupil months. Extend the school to twelve months."

This is the way the Public Education Association of Pennsylvania presents the all-year school problem, and then continues:

"Assuming that each pupil is in school three out of the four terms, and that in the aggregate the choice of terms is distributed evenly among the four terms, then the capacity of your plant is $10,000 \times 12$, or 120,000 pupil months. If each pupil attends nine months, you have accommodations for a school population of $120,000 \div 9$ or 13,333 pupils, a gain of 33-1/3% in capacity without the addition of one dollar in capital outlay."

Some Advantages to the Child and Teacher.

1. A child ill a month or two could drop out for the term and regain his grade in another term.
2. Parents could choose any term for the vacation term and travel with their children.
3. Vacation employment of children would be distributed through the year—an advantage to many.
4. Some children, physically strong, could save time by attending the four terms.
5. There would be a place for the active mischievous child to be kept busy in summer.
6. Vacation terms could be distributed among teachers as well as pupils.
7. Many children would gain a year or more in progress through the schools.



Advantages:

Minimum Stage Space
Unit Construction
Experienced Design
Perfect Workmanship
Remote Control
Extended Remote Control
Cumulative Control
Pre-selection
Flashless, Noiseless Switch
Operation
Highest Grade Materials

Adequate Auditorium Lighting Control That's Safe for Operator—Audience and Apparatus

Granted a flexible, trouble-free system of auditorium lighting control, the factor of most importance for school and college is Safety.

The Major System is the choice of the great theaters and auditoriums famous for their artistic lighting effects. It is the standard of efficiency in lighting control. Being of standardized unit construction, too, it is adaptable for any size auditorium, large or small.

But the way it meets the schools' necessity—Safety—is perhaps the most outstanding feature. The Major System has an extraordinary extended remote control. It is the only control system that any selected lighting can instantly be controlled from any number of switches located anywhere in the building,—eliminating all danger of panic by giving reassuring light in any disturbing circumstance.

In the Major System there is absolutely no fire hazard; the heavy current

switches are located in a fire-proof cabinet in the basement, the operator only handles the controlling pilot board, which is dead face and absolutely safe, located on the stage. In case of fire the auditorium lights remain on until actually burned out by the flames, as the stage switchboard will withstand a stream of water, whereas a live face switchboard, and some types of so-called safety switchboards, would blow all fuses and put out all lights upon immediate contact with water.

For giving a new usefulness to the old auditorium and for adequately equipping the most modern of new schools, the Major System is the proved and standard equipment. There is nothing that has its advantages in the whole field of lighting control.

The Major Book, "The Control of Lighting in Theaters," will be sent you upon request.

Frank Adam
ELECTRIC COMPANY
ST. LOUIS

SCHOOL ADMINISTRATION.

—The note of caution was recently sounded by Prof. Stephen S. Colvin of the Teachers' College, New York, in the use of the newer educational measurements. He suggested that there were many qualities that the tests did not measure causing danger of restricting individual opportunities as the result of inadequate data.

—The Belleville, Ill., board of education has adopted a five word school regulation which reads: Corporal punishment shall be prohibited.

—At Trinidad, Colorado, some 500 high school students went on a strike because the building failed to fly a flag.

—When the school board of Walla Walla, Wash., was confronted with the question of school dances it promptly decided to abide by a majority vote of the parents on the subject.

—The sugar beet industry conducted by Russian farmers in Nebraska has interfered with the school attendance of children employed therein. The state educational department has arranged to maintain schools during the months of July and August in order to make up for the absence from school during the autumn months.

—Stephenville, Tex. During the last three years a \$100,000 high school has been erected. Supervision of classroom instruction and play hours has been attempted through observation, reading examination papers, and the use of standard tests. It has been brought out that few administrators in small-town school systems can differentiate between inspection and supervision and few have a fixed plan for carrying out a definite program of supervision.

—Hartford, Wis. The entire staff of the high school has been reelected for the next year. During the year a large number of school activities were initiated. Under the leadership of Principal Arthur Schubert the faculty held well planned and well executed professional faculty meetings. The object of study for the first semester was the recitation, and for the second semester the object was measurement tests. As a result of the studies, the Terman group tests were given to the entire school and the results will be utilized in the distribution of classes for the next year.

—Cheyenne, Wyo. A six weeks' summer course has been arranged for the grades and

high school. Plans have been made for the housing of the seventh and eighth grades in the old high school building next year.

—The Missouri state board of education has selected a textbook commission consisting of one member from each of the 120 counties in the state. The county court of each county selects two members and the trio constitutes the textbook commission for the county. Each member must be a teacher and serve at the rate of \$5.00 a day. Cities with a population of 1,000 or more are exempt from the provisions of the law.

—The one night school has had a tryout at the high school of East Aurora, Ill. On this night the parents and friends are invited to the school to see the garments that the pupils have made and what is generally accomplished by the school.

—Kingsport, Tenn. Last year the children From I-A grade through the senior high school were given intelligence tests. The results of these tests together with the teacher's judgment were used to a large extent as a basis for classification of pupils. This year the Stanford achievement tests were administered to primary and intermediate grades.

—There are really just two classes of teachers, the static and the dynamic. The first, if he be a superintendent, seeks to be popular with his teachers by passing around pleasant compliments, permitting good teachers to grow better and bad ones to grow worse. He puts his ear to the ground to learn public sentiment and con-

HOME AND SCHOOL.

The home and the school must be closely drawn together in mutuality of knowledge and sympathy and in harmony of aim. The ideal teacher will possess perfect loyalty to the hearth and will never grow weary in inculcating the fundamental virtues of the home. This duty becomes the more pressing, this privilege the more sacred when it is remembered that unfortunately the home life of many children is itself unwholesome and unsound. Happy is the teacher that is able, through the pupil, to brighten and purify the atmosphere of the homes of the less favored and the unfortunate. A little child shall lead them.—Rockwell D. Hunt, Ph. D., Philadelphia.

forms his administration to the biggest noise. The static teacher is built on the same pattern, has peace at any price with pupils and parents and follows the methods of neighboring teachers who are winning commendation." So says the editor of the Ohio Teacher. "The dynamic teacher finds in every task and in every pupil a new problem, not to be solved by some fantastic method but to be considered in the light of the best experience and of the well established laws of administration and teaching with such modifications and adaptations as circumstances may require.

—The board of Education of Des Moines, Iowa, has enacted a rule which goes into effect September 1st excluding high school students who belong to any fraternity or sorority from any and all honors and positions representing the schools.

—When the Indiana school authorities found that the price of textbooks had advanced considerably over the previous state contract they invited bids for a second time with the expectations of securing lower prices. The prices, however, remained the same.

—Norman, Okla. Supervised playgrounds will be maintained for the first time this summer at all of the schools.

—The annual exhibit of the city schools of Winfield, Kans., was held May 9th and 10th, in the Winfield High School. The exhibits were open for inspection from noon to 5:30 on Wednesday, all day on Thursday, and from 7:30 to 9:30 both evenings. Demonstrations of class-work were given both evenings. The exhibit was viewed by 3,500 people mostly school patrons and interested citizens.

—Kingsport, Tenn. Last year all the children from IA grade through the senior high school were given intelligence tests. The results of these tests, together with the teacher's judgment, were used in determining the classifications of pupils. This year the Stanford achievement tests were given in the primary and intermediate grades.

One-third of the students in the training schools for teachers of New York City rated highest by the instructors on personality and oral English will hereafter be exempted from

(Concluded on Page 99)

P-A-X

TRADE
MARK

THE
PRIVATE
AUTOMATIC
EXCHANGE

[More than a private telephone exchange—the Automatic Electric Services of the P-A-X include and co-ordinate interior telephony, code call, conference, watchman service and all other inter-communication needs]

The P-A-X and Business-like School Administration

Our latest product is a simple, inexpensive P-A-X system, especially designed for the smaller schools, in which the larger, more complex P-A-X is not justified. This system provides the small school with the advantages of P-A-X service at the lowest possible cost.



The P-A-X is similar to the Automatic Telephone Equipment being so widely adopted for city service. It augments and completes but does not supplant nor connect with local or long distance telephone service.

WHEN your school is equipped with the P-A-X, principal and teachers are permitted instant communication with every classroom and department of the building.

This saves time, messenger service and avoids leaving classroom and students without supervision.

Any number of teachers may be included in the conversation and matters involving many persons settled with one call, or, if desired, any one teacher may be reached to the exclusion of all others.

Teachers cannot be interrupted by parents or other outside calls because the P-A-X does not connect with local or long distance telephone service.

When desired, a monitor board is installed that allows the principal to supervise all calls on the P-A-X.

The P-A-X supplies quick, accurate and convenient service, without the aid of an operator, during and after school hours.

The time saved, errors reduced and routines quickened will materially increase the efficiency of your teaching staff.

One of our engineers will be pleased to explain fully the many general and specific benefits of the P-A-X. Wire or write our nearest office.

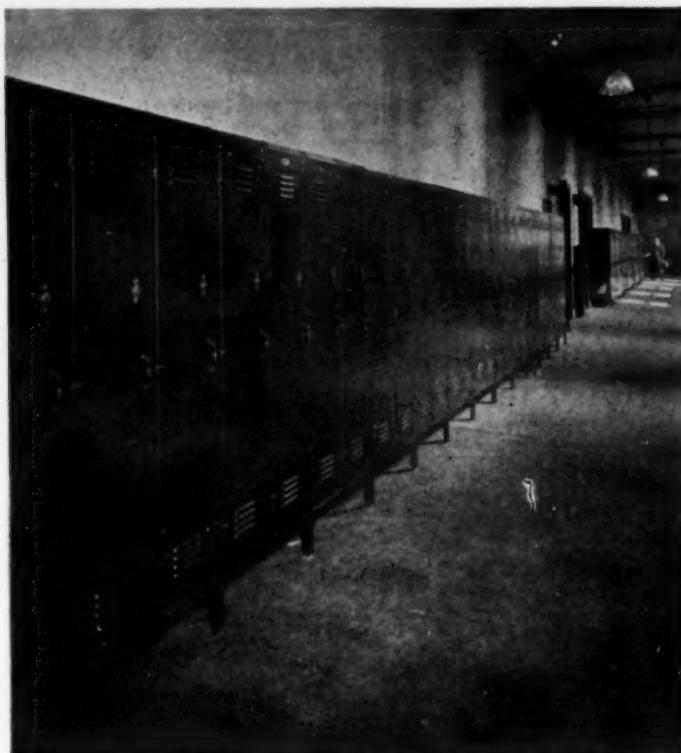
Automatic Electric Company
ENGINEERS, DESIGNERS & MANUFACTURERS OF THE AUTOMATIC TELEPHONE IN USE THE WORLD OVER
HOME OFFICE AND FACTORY: CHICAGO, U. S. A.

Branch Offices:
NEW YORK, 21 E. 40th St.
PHILADELPHIA, The Bourse Bldg.
BOSTON, 445 Tremont Bldg.
PITTSBURGH, 608 Fulton Bldg.
CLEVELAND, 801 Cuyahoga Bldg.
CINCINNATI, 827 Union Central Bldg.
DETROIT, 525 Ford Bldg.
KANSAS CITY, 1510 Waldheim Bldg.
SAN FRANCISCO, 37 California St.
LOS ANGELES, 238 San Fernando Bldg.

In Canada—Address
Northern Electric Co., Ltd., 121 Shearer St., Montreal, P. Q.

Abroad—Address
International Automatic Telephone Co., Ltd., 60 Lincoln's Inn Fields, London, W. C. 2, England

In Australia—Address
Automatic Telephones, Australasia, Ltd., 207 Macquarie Street, Sydney, Australia



Almost every article of school equipment will at some time have to be replaced—but Durand Steel Lockers you will not have to replace. The possibility, at least, is negligible.

Not only the lockers, but your satisfaction with them, endures. Their efficiency, simplicity and dignity are not likely ever to go out of fashion.

This being so, can you afford to have anything but the best in lockers? Our schools are built for coming generations. Let posterity have good lockers as well.

DURAND STEEL LOCKER CO.

CHICAGO
DETROIT

NEW YORK
PITTSBURGH

DURAND STEEL LOCKERS



A Better School

Knapp Products make a cleaner school—a safer school—a more permanent school.

When you specify Knapp Sanitary Metal Window Trim, Flush Cove Base, Flush Door Casing, Concealed Picture Mould, Corner Protector or any other Knapp Product, you have insured a better school for your community.

Filth and dirt cannot collect in corners, the room is easier to clean—it adds to the fire resistance of the building.

Knapp Products are easily installed—and do not cost any more than less satisfactory trim.

Write for complete information.

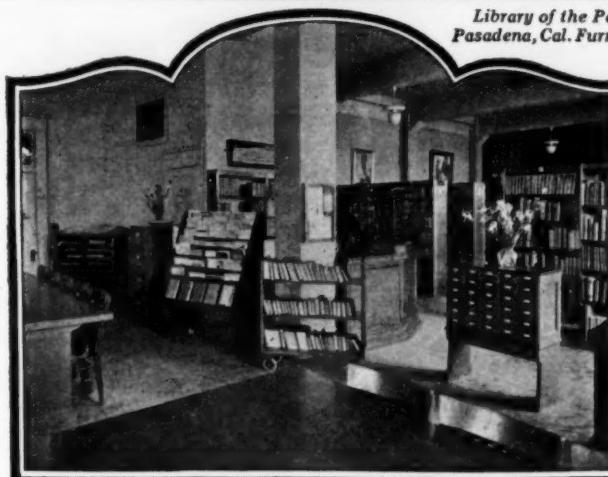
KNAPP BROTHERS MFG. COMPANY
2419 West Fourteenth Street Chicago, Illinois

Knapp
SANITARY
METAL
TRIM
TRADE MARK

B

"After several years' use of it (L.B. Library furniture) and also of clever imitations I can say only that the imitation suffers by comparison. L.B. furniture is so carefully and scientifically planned, so thoroughly well constructed and the finish so durable that once installed it is permanently satisfactory."

Winifred E. Skinner,
Librarian



*Library of the Pasadena High School,
Pasadena, Cal. Furnished by Library Bureau*

"Permanently Satisfactory"

The school authorities of the Pasadena High School, Pasadena, California, bought L.B. Standard school library equipment solely because they were convinced of the economy of having a superior library—one suitable both for today and a generation from today.

Read the letter above. Investigate the experiences other schools have had with L.B. equipment.

Library furniture
and supplies

Boston

89 Federal Street

Chicago

214 West Monroe Street

New York

380 Broadway

Los Angeles

McKee & Wentworth
440 Pacific Electric Bldg.

Steel bookstack
Museum cases

San Francisco

F. W. Wentworth & Co.
39 Second Street

Salesrooms in leading cities in the United States, Great Britain and France

(Concluded from Page 96)

oral tests for licenses to teach in the elementary schools. The score cards carry space for remarks on the following items: 1 appearance, 2 health, 3 mentality, 4 industry, 5 social attributes, 6 sense of responsibility, 7 speech (self-expression), 8 reading, 9 phonetic aspects, 10 voice.

"Educational authorities, have taken great strides in understanding the different potentialities of learners. Subjects which are adapted to some are not good for others. Some subjects have great merit for the few," said Dr. David Snedden of Columbia University in a public address recently. "The new keynote in education is that some things should be taught thoroughly while others may be stressed less. Educators must be able to differentiate. Some subjects rely on interest, while others must be taught exactly, whether interest can be aroused or not. The problems in variability which confront us are intelligence of children, social inheritance, and native capacity.

"A one-teacher school which attempts to handle all grades and all ages is a delusion and a snare," says Clarence Poe, editor of the *Progressive Farmer*. "The pupil never gets far enough to make his education a real power for widening his vision and increasing his happiness and efficiency."

—Miss Elsie Goodwin of Congo, Ark., urges hot lunches for rural school children. She says: "It just takes a little bit of effort from the teacher, pupils and patrons in our districts to bring these good things into our rural schools, so let us become more interested and work together for the upbuilding of our rural schools, in order to check people from moving to the cities to educate their children."

—At Hurley, S. D., an "honor point" system allowing credit for extra-curricular activities has been introduced this year. Under the plan, the best all-around students become "honor" students, where they show evidence of scholarship experience in "activities."

—Departmental instruction has been introduced to a limited extent in the upper grades of the elementary schools at Corinth, N. Y.

—Fullerton, Calif. Several plans for stimulating interest in the studies of the pupils have been tried out. The most useful of these has been the plan for promotion and demotion. Children are graded every six weeks on the basis of their abilities and special needs. All promotions and demotions are carefully checked by educational and intelligence tests, in addition to the usual report card records and the teacher's judgment. The plan is only one of the means used to provide an elastic system of promotions and to more efficiently serve the needs of the child.

—Providence, R. I. A forward step has been taken in securing the organized cooperation of bodies of leading citizens with the public-school authorities, for the promotion of the school interests. Representatives of the five leading clubs and the local chamber of commerce have been organized into a council under the name of the Educational Council of Civic Clubs. The council meets regularly and continuously twice a month. It has undertaken a careful survey and study of the school system, in an endeavor to discover the greatest needs, and to arouse and organize the sentiment of the community for meeting these needs.

—With the cooperation of Superintendent D. Riley Haworth and the approval of the board of education the boy students of the senior and junior high schools of Johnson City, Tenn., edited for one day the *Johnson City Chronicle*, the leading daily newspaper. The results were highly gratifying to the reading public.

—"Economy and maximum efficiency are the watchwords of the hour. The largest single item of taxation in most communities is that of education," says Superintendent W. N. Anderson of Anita, Iowa. "Along with better schools have come greater financial as well as greater social responsibilities. This in turn has brought about a need for more refined methods of accounting, as well as a better and wider dissemination of information required to interpret this accounting."

—One school child killed and twenty maimed daily is the rate of street casualties of New York City, according to a statement made by

Jacob Jackowitz, school editor of the *Evening Mail*. A definite safety campaign for school children is being planned by Superintendent W. L. Ettinger and the bureau of public safety.

"Textbooks are the tools with which the teacher works. Unless these tools are of the latest and most approved type the best results cannot be obtained," said John W. Abercrombie, state superintendent of Alabama recently. "In no teaching essential has greater advancement been made during the last decade or so than in that of textbook production; yet, in many instances, Alabama is using books which were adopted ten or fifteen years ago. Unfortunately these instances are found chiefly in the elementary schools. It would be foolish to train an army and equip it with antiquated weapons of warfare. It is equally foolish to select and maintain a corps of teachers and provide it with textbooks which in content and method do not meet modern conditions."

—Seattle, Wash. The superintendent in his special report on educational research activities, recommended the continuance of the research work in the local schools the coming year, at a cost not to exceed \$3,000, and the reemployment of Prof. Ayer in charge of the work the past year. In his report, the superintendent offered a brief outline of the scope of the work in each of the cities reported, and gave also the results of the work accomplished in Seattle.

—Hackensack, N. J. A census has been taken of all pupils now in school, showing the number from each grade who live in any given block. A study of the figures shows the need of some readjustments in certain districts to avoid overcrowded classes or too small classes, and to make the distances traveled by all pupils as short as possible.

—South Bend, Wash. A beginning in the introduction of the junior high school idea has been made with the concentration of the seventh and eighth grades in one building. The supervised study plan has been inaugurated as a means of economizing in teaching time. The further development of the plan depends on the passage of a law which will sanction the junior high school in the state.

Standard L.B. school library equipment in quartered oak

- Card catalog cases
- Charging desks
- Reading tables and chairs
- Unit wood book-shelving, wall and double-faced
- Periodical racks
- Dictionary stands
- Atlas cases
- Display cases for books
- Glass door book-cases
- Vertical units for pamphlets, clippings and picture files
- Book trucks
- Exhibition cases
- Bulletin Boards
- Lantern slide cases

School library supplies

Administrative school records and files for superintendents, principals, department heads, secretaries, etc.

Write for catalogs and information

Higher Quality - Lower Cost Painting

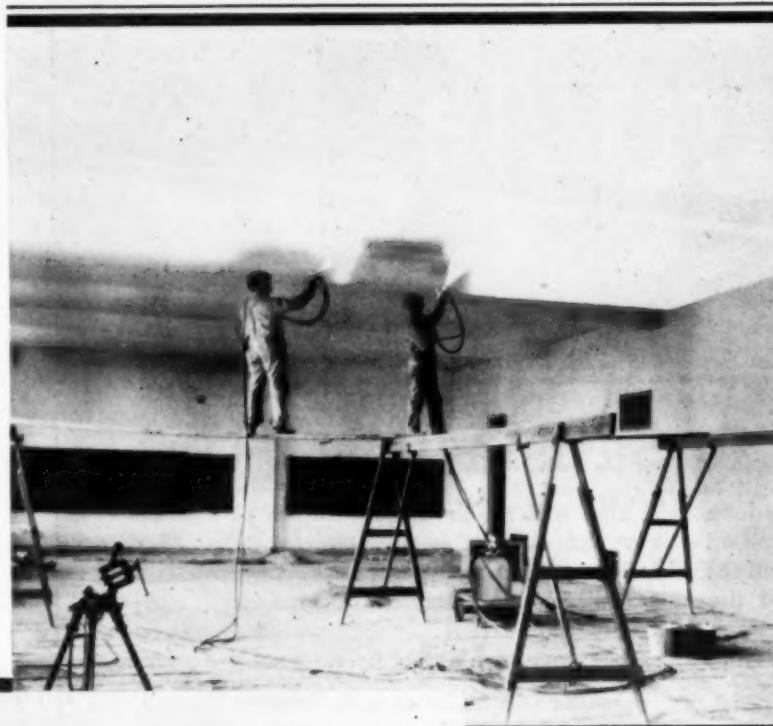
THE new Libbey High School building, just completed at Toledo, Ohio, is pictured below.

In this magnificent, finely appointed, 2,000 student capacity structure, the entire plaster wall and ceiling surface was spray-painted with DeVilbiss equipment.

Three coat work, greater in hiding power and highly superior in quality, was done with a coverage of better than 600 sq. ft. to the gallon of paint.

A saving in excess of 70% was effected on the single item of painting labor.

The large picture at the right shows the spray-painting operation in one of the class rooms.



SAVING 70% in painting labor alone and getting a superior quality of work throughout, are the DeVilbiss spray-painting results just obtained on this, the newest and largest, high school building in Toledo.

You can obtain similar advantageous spray-painting results on your own new and maintenance work. This example of solving the high cost painting problem, while at the same time producing the best possible quality of work, is only one among thousands in the service record, covering many years in the school and other fields of painting, of the

DeVilbiss Spray-painting System

Painting the DeVilbiss way means painting 3 to 5 times faster than with brush-and-pail. No time is lost in dipping, daubing and brushing-out the paint; the material is always at the nozzle of the spray gun ready for easy and unbroken application. Places impossible to reach with the brush, but which should be painted, are as thoroughly and uniformly spray-coated as the more accessible surfaces. There is no dripping and spattering of paint. The coating applied has more hiding power than the brushed coat, is more reflective and longer wearing. And of additional importance: your men will like to operate the non-tiring DeVilbiss spray gun.

There are further interesting facts about the DeVilbiss Spray-painting System and how it will unfailingly serve you in improving the quality and reducing the cost of your painting, which we shall gladly mail to you promptly. Address—

The DeVilbiss Manufacturing Co.
268 Phillips Ave. Toledo, Ohio

Getting a New Building

By the Superintendent.

Without a doubt every community experiences some opposition to a new school building. There are always those with us who do not see the necessity or who do not want to pay the price necessary to secure the things modern civilization demands. These people are willing to receive but not willing to give in return and they are willing to make a fight against anyone who opposes them.

This district has been in the grip of a fight for several years. The board decided to call a bond election a few years ago to issue bonds for the purpose of erecting a much needed building and did so and the election carried nicely. Then the war came on and it seemed advisable not to go ahead at the prevailing prices.

This delay gave the opposition a chance to start something and Mr. X, proceeded to circulate a petition to have an election to let the voters decide whether or not the outlying lands should be in the same district as the incorporated village. This election was called and two polling places, two sets of ballots and two sets of election officials were put forth, one by the regular board and one by the followers of Mr. X. Both sets of returns were sent in and the county superintendent accepted those of the board. Suit was brought against her to compel her to accept the other returns. She was sustained by the circuit court and by the supreme court, after all the delay that could possibly be brought about.

While awaiting the decision of the supreme court on the above another election was held and bonds again carried by a substantial majority. These were sold, bearing six per cent. As soon as the supreme court made its decision the money for them was received and placed on deposit at five per cent. The usual details of advertising for bids and letting the contract were gone through with, an architect having been retained when the bonds were sold. At the school election preceding this Mr. X succeeded in getting his daughter and son-in-law elected to the board in an election that was open to ques-

tion and which was contested and which is now awaiting a decision of the court.

Just on the day on which the bids were to be opened an injunction was served on the board preventing them from going ahead and exercising any authority as a board, even to paying teachers' salaries, the same to hold until the question of dividing the district might be tried in open court. Court adjourned, however and the contract was awarded, subject to the outcome of this injunction which was denied some two weeks later. Now the board faces the suit for separation because the decision on the injunction was appealed.

The arguments used are varied and at times very personal. My affidavit setting forth the actual enrollment of the school was attacked as a deliberate attempt to misrepresent etc., and nearly every statement of fact has been denied.

We are conducting high school classes in the main halls and have to seat high school students in them. The gymnasium has been partitioned off into classrooms. Our assembly room is fully fifty per cent overcrowded and every other facility of the ordinary school comes up to about the same degree of fitness.

It seems often though that this is not the worst feature. It seems to me that worse than this is the constant fire we are under. I went down town one day and heard a report that we were planning to flunk 85 per cent of the student. This was too big to believe and I was told Mr. X had been telling it. Report also has had it that country children were discriminated against and had no chance to pass. Notwithstanding such a situation two of the four scholarships of the present year went to country students. Because two or three boys who loafed away the year left school during the year it was reported that I had driven them out, the criticism being made by those in opposition.

These are merely stated to show that the constant repetition of such tales does have a demoralizing effect on the tone of the school. Our school has done well under such adverse conditions and is entitled to some credit and, naturally, some

criticism. No doubt other districts in the country are having their troubles. We have had ours but we have always had a majority of all the voters as well as the property owners on our side and the board has resisted every attack so far. It has been very discouraging for them and equally so for the teachers but all have kept steadily at it and there is no disposition to let it stop now. Every decision has been in our favor and many who voted against the bonds have decided it is best to abide by the majority vote. The delay, however, keeps us at a standstill.

NEWS OF SCHOOL OFFICIALS.

—Mr. S. M. Duffie of Mission, Tex., has been reelected as president of the board. Mr. Duffie has entered upon his seventh year as president of the board. During Mr. Duffie's term of service the schools have experienced a most successful business administration, high salaries have been paid the teachers and the entire system has been placed in a most excellent financial condition.

Summerville, Ga. T. P. Johnston was appointed a member of the county board of education to succeed N. A. Crawford.

—Roslyn, Wash. Mr. John E. Morgan, formerly president of the board of education, has been replaced by Mr. Harry Ritchie.

—Cheyenne, Wyo. Mr. William Storey, for 21 years a member of the school board, resigned in January last. Mr. Storey's place on the board has been temporarily filled by Mr. Fred Warren.

—Mr. A. W. Lueck has been reelected president of the Beaver Dam, Wisconsin, board of education for a sixth consecutive term.

—Mr. M. Samuel Stern, vice-president of the board of education of New York City, on May 12th was honored with a luncheon at the Hotel Astor. At the luncheon were representatives of the bench and bar, the churches and all branches of the educational department, who met to praise the work accomplished by Mr. Stern in the schools during the last 22 years. Fifteen speakers extolled Mr. Stern's character and attainments and expressed their admiration for his years of service.

At the close of the exercises a platinum watch was presented as a reminder of the occasion on behalf of the diners.



Grab-bag Buying!

"Dump them all in a grab-bag—shake well—then pull out the first one you touch. You'll save lots of time; one's as good as another. You will get just what you pay for, and no more.

"That's the parting shot a business man gave me years ago. I believed in cheap paints then, and I was trying to pick the best of the lot. You get what you pay for—but you don't. It costs just as much in labor—and that's 75% of the cost of painting—to put on a temporary finish as it does to apply Hockaday, a permanent paint."

Repeat Orders --- The Test of Hockaday

Here's a few of the schools that have reordered:

Minneapolis, Minn.
Birmingham, Ala.
Erie, Penna.
Harrisburg, Penna.
New York City.

Don't class Hockaday with "ready mixed paints." It's different. Hockaday comes in two parts, Body and Reducer.

Richmond, Va.
Memphis, Tenn.
Tacoma, Wash.
Schenectady, N. Y.
Baltimore, Md.

Hockaday will also cut your maintenance cost. Our specialists will be glad to demonstrate and give you detailed facts.

THE HOCKADAY COMPANY

1823-1829 Carroll Avenue
Chicago

HOCKADAY

THE WASHABLE PAINT FOR ALL INTERIORS



An Installation of Sani Equipment—Waukegan Township High School, Waukegan, Ill.

Now Is The Time To Install Lunchroom Equipment

VACATION time is the time to purchase and install new equipment. Your school needs a lunchroom. It is just as necessary to the welfare of the pupils as the other departments. Don't make the mistake of purchasing temporary equipment. Install *Sani*—the equipment that is permanent—the equipment that always looks clean and inviting.

Mr. Paul G. W. Keller, Principal of the Waukegan Township High School, writes as follows: "A short time ago we placed your cafeteria equipment in our new Junior Building, and I wish to state that we are very much pleased with it. It gives a fine impression, is durable and sanitary. Everyone who has seen the equipment speaks very highly of it and I am sure any school planning on a cafeteria would do well to give your products careful consideration." This letter is typical of many we receive.

Sani lunchroom equipment is endorsed by educational institutions all over the country. The snow-white *Sani-Onyx* table and counter tops are easy to keep clean because they are not stained or spotted by fruit juices or spilled liquids. All exposed parts of table bases and counters are *Sani-Metal* porcelain enamel, either white, oak or mahogany. This material resists the deteriorating effects of wet brooms or mops. *Sani-Onyx* is also used in place of marble or tile, as it is more sanitary, permanent and will not discolor.

Some Recent Installations

Fordham University, New York City.
Vanderbilt University, Nashville, Tenn.
Delgado Trade School, New Orleans, La.
Brookline High School, Brookline, Mass.
Providence High School, Providence, R. I.
Villa Nova College, Villa Nova, Pa.
Ohio State University, Columbus, Ohio.

Write for Full Information

Your local supply house or this office will be pleased to forward catalog and drawings of plans for any changes you contemplate or installations you desire to make. This book shows a complete line of *Sani* equipment and many installations.

Canadian Factory
Sani Products Co., Ltd.
284 St. Helens Ave.
Toronto, Canada



Sani Products Co.
487 Sani Building
North Chicago, Illinois



Classroom in Lincolnwood School, Evanston, Ill.
Perkins, Fellows and Hamilton, Architects.
Where T-M-B Flooring has given two years of satisfactory service.

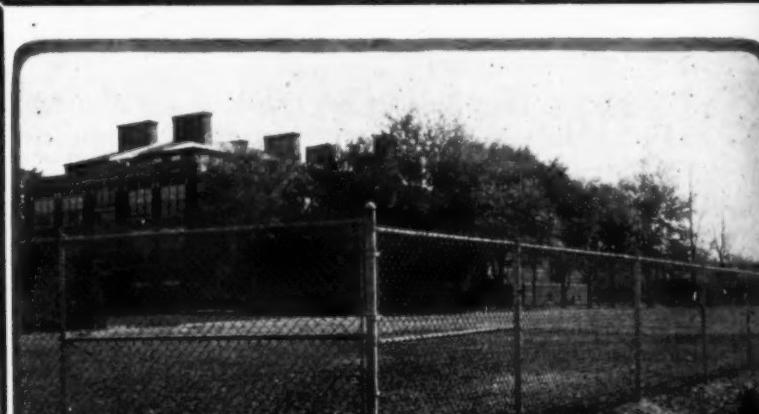
Germs Haven't a Chance!

Place a real hygienic floor in your school—and no germ will have a chance. T-M-B flooring is laid in one continuous, seamless sheet—without a joint or crevice anywhere. It is non-porous—is easily cleaned—and always looks new. Write for our new booklet No. 10—and complete information.

Thos. Moulding Brick Company
CHICAGO, Ill., and COLUMBUS, Ohio

T-M-B
FLOORING

"The Floor That Keeps Its Promise"



Afco Fences

First, PROTECTION. Open-air play without danger or burdensome supervision. No straying and no intrusion.

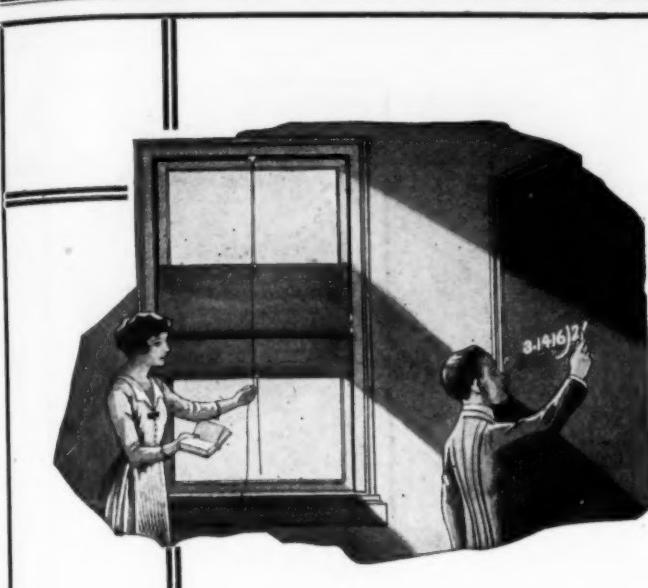
Second, SIGHTLINESS. An Afco Chain Link School Fence sets off the grounds it encloses. It is an ornament.

Third, PERMANENCE. It is built of materials that last, and set to stay rigidly erect and in line.

PRACTICAL ECONOMY—All the Time. Standardized construction: heavy chain-link steel wire fabric; 3½, 4, 5 ft. and other heights. Erection by us or your own labor.

Let us advise with you and quote on your requirements.

American Fence Construction Company
130-132 West 34th Street, New York



Write for colors 214 and 204 in Tinted Cambric which have been approved by competent chemists and adopted by school boards of many municipalities.

Distributed by converters throughout the entire country.



Established 1860

STEWART HARTSHORN CO., 250 FIFTH AVE., NEW YORK CITY

TEACHERS AND ADMINISTRATION

DIRECTIONS FOR TEACHERS.

Superintendent David E. Cloyd of Huron, S. D., recently prepared a set of directions for teachers, as follows:

1.—The Teacher's Daily Schedule for the year will be as follows:—

Arrival at the Building—

Forenoon, high school teachers, 8:15; grade teachers, 8:30; Principals, ten minutes earlier.

Afternoon, all principals and teachers, 1:00.

Departure—

Forenoon, all principals and teachers, 11:50.

Afternoon, all principals and teachers, 4:30.

2. Please go to the room to which you are assigned the day before school opens and put your desk, cabinets, pictures, window shades and other things in first class condition so that they will represent the habits and ideals for which you as a teacher should stand.

3. Secure from your Principal every item of equipment or supplies that you will need with which to begin your work and have all these in your room and in place for use before the morning of the first day of school.

4. The Grade School recess period is very important and each Grade teacher is expected to look after her own pupils in the halls and on the playground during the recess period.

Each high school teacher is responsible at all times for the administration in the part of the building adjacent to her class room from the opening of the school in the morning to 4:30 in the afternoon.

5. The intermission between the close of class work and the time of departure from the school building, both forenoon and afternoon, is to be spent by each teacher in her own room closing the day's records and preparing the work

of the next day, or in some special meeting with the Principal, Supervisors or Superintendent.

6. The Daily Plan Book is the most important part of the teacher's material equipment. It is intended to connect up the work of yesterday, today and tomorrow in the mind of the teacher and the pupil as a unit of thought. A lesson plan looks both backward and forward and is of no value if prepared after the time for its use has passed. No teacher is ready to leave the school building at the close of any day until the lesson for Day-After-Tomorrow is carefully prepared in the plan book for assignment at the close of Tomorrow's lesson.

7. A contract to teach is an agreement to give one's first and best interests to the work of the school and the community and is not to be considered, merely as a means of enabling one to have a good social time outside of school hours. Teachers should not spend their school-day nights in types of amusement that leave them without preparation, sleep, rest and strength for the next day's school work.

8. The "habit and will to study" and to improve in knowledge and methods of school work are essential to permanent and abiding success—a teacher who never studies draws pay for services never rendered.

9. The associations established by a teacher at the beginning of her life in a community, as a rule, shape her destiny in that community. Therefore, a teacher should be careful and judicious in her first friendship.

10. The Spiritual influence of a teacher is of greater consequence in the life of her pupils than is the book knowledge that she imparts. For this reason each teacher should from the very beginning of her life in a community identify herself in active work with the Church and Sunday School of her choice. A teacher should be a "color and tone producer" and should not, like the chameleon, take on the color, whatever it may be, of her environment, thereby hiding her very existence from the world to which she is properly expected to give color and tone. Lead your friends upward into a richer Spiritual life and do not let them render you toneless.

11. Some teachers go about their work with a spirit of helpfulness, while others sputter in

destructive criticism. With which group are you to be classified this year?

12. Discretion and loyalty in speech among all associates is a supreme test of the character of a true teacher.

WORKING CONDITIONS FOR TEACHERS.

—Supt. James C. Bay of Easton, Pa., in presenting his report to the board, outlines the following general policies pertaining to working conditions of teachers in the schools:

I. Length of School Day. The working day shall not be less than six hours, as fixed by the state school law.

II. Teaching Time. The teaching time of primary grades shall be five hours, with thirty minutes devoted to health education, fifteen minutes in the forenoon and fifteen in the afternoon. The teaching time in grades four to eight, inclusive, shall be five and one half hours, with thirty minutes devoted to health education, fifteen minutes in the forenoon and fifteen in the afternoon.

III. The Working Day. The working day of high school teachers shall be the same as that of elementary teachers, six hours, or eight 45-minute class periods.

IV. Teaching Load. The teaching load of all high school teachers, except those in health education, shall be fixed at a minimum of 562 student hours weekly. This is translated into class loads as follows: Five 45-minute classes of thirty pupils each, or six 45-minute classes of 25 pupils each.

V. High School teachers may be assigned by the principal to any other instructional or non-instructional activity during free periods.

A TEACHER'S CODE OF ETHICS.

A committee on professional ethics consisting of R. W. Cooper, J. P. Edmonson and L. W. Fast has submitted a tentative code of ethics for teachers to the Michigan State Teachers Association, as follows:

1. A teacher should actively affiliate with professional organizations of teachers.

2. A clear understanding of the law of contracts is incumbent upon a teacher. Since a teacher should scrupulously keep whatever agreement is made, he should refuse to sign a contract unjust and humiliating in form.



Leadership—

—this award of merit has placed its mark indelibly upon Continental School Scales. This is no vain boast,—it is fact.

Wherever a Continental is admitted to inspection, a Continental is put to use. Teachers and Travelling Nurses everywhere are enthusiastic in acclaiming its leadership.

High quality materials and painstaking workmanship are the reason for its permanent accuracy and long life. The exclusive operating features which add to the convenience and efficiency of the user are well worth your consideration.

Detailed description and price list mailed upon request. Write today.

CONTINENTAL SCALE WORKS

2130 West Twenty-first Place, Chicago, Ill.

"We Weigh the World on Quality Scales"



The HEALTH-O-METER

Step On and Read Your Weight on the Dial

Here is a sturdy personal weight scale very reasonably priced.

Weighs by the pound up to 250 lbs. Extensively used in Homes, Summer Camps, Schools, etc.

Handsome oven baked white enamel, Nickel plated sash on dial. Inlaid cork platform, comfortable to bare and stocking feet.

Write for full description.

- ✓ 3. It is unprofessional for a teacher to resign unless his contract provides for release on giving of proper notice.
- 4. It is unprofessional for a teacher to sign a yearly contract to teach for a wage that is not sufficient to cover living expenses for twelve months.
- 5. It is unprofessional for a teacher to underbid, knowingly, a rival in order to secure a position. It is expected that a teacher will verify a rumor of a vacancy before filing an application. In a graded school, an application should be filed with the superintendent.
- 6. It is unprofessional for a teacher to interfere in any way in matters of discipline between another teacher and pupil.
- ✓ 7. It is unprofessional for a teacher to bear tales to the administration about another teacher. However, it should be considered as unprofessional not to report to the administration matters that involve the best interests and welfare of the school.
- 8. It is unprofessional for a teacher to remain in a system and not co-operate with the administration of the system. Those in authority should be given the benefit of a doubt in matters of policy.
- 9. It is unprofessional for a teacher to tutor pupils of his own classes for remuneration, except by special permission of the school authorities.
- 10. It is unprofessional for a teacher to absent himself from school or to call in or allow the use of a substitute, except for serious illness or for other grave reasons.
- 11. It is unprofessional for a teacher to measure his duties and responsibilities to the pupils, to the school, or to the community, in terms of financial rewards.
- 12. Since teachers are rightly regarded as examples to pupils, a teacher should so conduct himself that no just reproach may be brought against him. Where liberty of conscience is not concerned, a teacher should stand ready to make personal sacrifice, because of the prejudices of a community.
- 13. It is unprofessional for teachers to criticize predecessors in the presence of pupils or patrons. Such procedure tends to injure the school and to weaken the confidence in which the work of teachers is held by the public.

- 14. Teachers should be ready at all times to assist one another by giving information, counsel and advice, and by such services and acts as teachers can perform without detriment to themselves or their work. Such reasonable services should be regarded as a professional duty for which remuneration beyond actual expenses should not be accepted.
- 15. No teacher should become involved in any dispute or factional difference indigenous to the community in which he is working.

- 16. It is unprofessional for any teacher to arouse or to seek to arouse among fellow teachers a spirit of antagonism toward another teacher, a principal, or the superintendent.
- 17. It is unprofessional for any teacher to recommend to any school board another teacher for a definite position unless said position has been officially, legally and conclusively declared vacant.

TEACHERS AND ADMINISTRATION.

—At Indianapolis a teacher was charged with whipping a pupil. The judge exonerated the teacher and held that "if all moral suasion fails the child must be licked. I have sent many a child to the reform school because parent or teacher failed to apply a good whipping when such was needed."

—Everett, Wash. The school board upon the petition of 152 teachers, over 75 per cent of the teaching staff, has voted to establish a teachers' retirement fund. Everett is the fifth city in the state to establish a fund under the law of 1917 permitting districts of the first class to so organize. The law of 1917 makes provision for a district guarantee of funds which is not so provided for in the new state-wide law effective June 7, 1923.

—Wooster, O. The school board has outlined a high standard for teachers' salaries. The average salary for grade teachers is about \$1,500 and for high school teachers \$2,000.

—Palestine, Tex. As an incentive to further professional preparation on the part of teachers in service, the school board in reelecting teachers, has allowed salary increases sufficient for covering a part of the cost of a summer school course.

The board has adopted a rule providing that teachers who have not attended school for the past four years, be required to attend a twelve

weeks' course at a summer school. Teachers who do not hold permanent certificates must raise their certificates to a satisfactory standard within the next three years.

—Roslyn, Wash. The board has adopted a policy not to appoint married women to teaching positions.

—Wisconsin is producing an over-supply of teachers. C. J. Anderson, assistant state superintendent of schools reported to the legislature that the normal schools would graduate 1,333 elementary teachers with a probable demand of 1,000, and 730 high school teachers with a probable demand of 560. He further reports that the new agricultural teachers number 61 with a demand for only 15; home economics 185, demand 50; manual training 189, demand 30. The surplus of rural teachers numbers 680 this year.

—At Indianapolis, Ind., school No. 27 was officially named the Charity Dye school in honor of the late Miss Dye who had been a teacher in the building for many years. The motive was that "Miss Dye represented everything that was beautiful, good and true."

—The Indiana state board of education has provided that teachers applying for positions must be equipped with health certificates. The board designates the physicians who make physical examinations.

—In discussing the subject teachers' code of ethics Superintendent William L. Ettinger of New York City recently said:

"Where, you may ask, should we look for the origin of such codes? In order to have vitality and significance, such codes must find their origin, their growth and their formulation in the teaching body and therefore should not be imposed upon teachers either from without or from above. They are meaningless insofar as they are imposed upon teachers; they are vital and controlling insofar as they reflect a sensitive and enlightened professional conscience."

—Cincinnati, O. The school board has revised its rules making it possible for a teacher to be absent with pay for one day on account of the death and burial of a sister-in-law, a son-in-law or a daughter-in-law. A case arose in which a teacher was absent on account of the death of his son-in-law and he could not be allowed pay for absence under the rule.

(Continued on Page 107)

Specialization on One Type Makes the Miessner the Leading School Piano

Only 3 feet 7 inches high; teacher looks over the top to direct the class. Easily moved by two small pupils. One Miessner serves an entire floor.



As the engineer first studies his problem before undertaking a big construction feat, so W. Otto Miessner studied school music problems before he undertook to build the ideal school piano. Mr. Miessner, a music educator of note, saw school needs as could only the expert—one who has devoted his life to this field. Had his small piano fallen short of his ideals when first tried out five years ago, it would never have found its way to the school room. However, it was a wonderful success right from the start.

Mr. Miessner was not content to rest on the name, "originator of the small piano." With his entire organization he has concentrated on making the small upright better and better. One type piano claims undivided attention and with this specialization and concentration, the Miessner Company has brought their small piano to the highest plane of perfection.

First of its kind, it is also first in development and improvement. Not merely smaller in size, but a scientifically constructed instrument, an achievement in low tension stringing. Here is where attempts to imitate the Miessner have fallen short. The secret of the Miessner's big, full, beautiful tone is in this construction. Mail attached coupon now and get complete facts about Miessner supremacy.

THE MIESSNER PIANO CO.
118 Reed St. Milwaukee, Wis.

MIESSNER
THE LITTLE PIANO WITH THE BIG TONE

Miessner Piano Co.
118 Reed Street,
Milwaukee, Wis.

Gentlemen:

Please send me descriptive literature, your special proposition to schools, and details of your 10-day Trial Offer.

Name.....

School.....

Position.....

Address.....

Van Equipment— For preparation and serving of food

The merit of Van Equipment has been so firmly established that an installation by The John Van Range Company always insures lasting durability.

This quality recommends Van Equipment for use wherever dependability and efficiency is required in Kitchen and Dining Room.

A reputation is not built in a day—each of the last sixty years has proven conclusively, "That Enduring Quality" of Van Equipment.

Van engineers and food service experts are ready to co-operate with you in all details up to the completion of the installation.

Nothing too large or too small for Van to handle.

The John Van Range Co.
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD
CINCINNATI

Chicago
New Orleans

Omaha

Detroit
Cleveland



Our 364 page catalog, showing all equipment necessary for the dining room and kitchen, is indispensable to buyers of such commodities. Write for it today.



"A Splendid Book and We are Glad to Have it" —

Such is the expression elicited from a western school after receipt of a copy of "PLANS"—the master book on

Domestic Science Classroom Planning

—and here is one from an eastern school:

"Your plans are very helpful material for students who are preparing to go out into the teaching field. The copy you sent me will be placed in the library with other reference material. Thank you."

Another:

"It is a much better book than I expected. I am sure it will be of value to me."

A Book That Should Be in the Possession of Every School Architect, Superintendent, Supervisor and Domestic Science Teacher.

PLANS offers a practical and valuable treatise on Domestic Science Classroom planning that should be of vital interest to every one interested in this fast-growing branch of vocational training. It is free and involves no obligation.

Send for Your Copy Now

A - B STOVE COMPANY
Battle Creek, Mich.



RUNDLE-SPENCE "VERTICO SLANT" DRINKING FOUNTAIN

Rundle-Spence "Vertico-Slant" Drinking Fountains are the direct result of years of experimentation, with the view of producing a drinking fountain that would not merely serve as a convenient method of supplying drinking water, but a fountain absolutely sanitary in design,—durable in construction,—plus, economical in cost.

RUNDLE-SPENCE "Vertico-Slant" Drinking Fountains have no hoods on which the corners of the mouth can rest, no filth collecting crevices that are impossible to clean. The bowls are of extra heavy vitreous china, of free open construction, and are principally and essentially sanitary in every respect.

The patented design and construction of the RUNDLE-SPENCE "Vertico-Slant" Drinking Fountains are positively germ proof, and absolutely eliminate all possibility of contamination—durable in construction, plus economical in cost.



This handsome vitreous china, one-piece fountain combines all the conveniences of the vertical stream fountain with the special slanting stream feature. Glass or cup can be readily filled from it. Possibility of squirming, tampering or pilfering reduced to a minimum.

Send now for catalogue giving greater detail and a variety of styles.



Rundle-Spence Mfg. Co.

63 FOURTH STREET

MILWAUKEE, WISCONSIN

(Continued from Page 104)

—Retirement and disability annuities for teachers in the state of Washington have been made possible under a law which went into effect in July. The first annuities will be made payable in one year's time and teachers may take advantage of membership in the fund not later than May 1, 1924. New teachers may be admitted to the fund upon being employed.

The fund provides an annuity of \$480 a year for retired teachers who have taught thirty years, of which fifteen years have been in the state. The fund provides for two classes of disability annuities and for a total of two years of absence for professional preparation.

—Winlock, Wash. The school board has voted unanimously against the employment of married women teachers.

—Of 39,576 teachers employed in the elementary and high schools of the state of Illinois last year, 7,698 were college or university graduates, 9,728 were normal school graduates, and 10,309 had a high school education only. There were 1,154 who had attended high school but were not graduates, and 1,151 who had not attended high school.

—Better teachers for the Indiana rural schools, and the saving of thousands of dollars in schoolhouse construction are the outstanding achievements in education made possible by the last legislature through new laws. A teachers' licensing law has been passed requiring that teachers have more training than in the past to obtain a school. Another law amends the contract law making the teacher's job more secure. The new law provides for a minimum of 36 weeks' training and makes the issuance of teachers' licenses upon the basis of a certificate of training and without examination. The new law eliminates the inadequately trained teachers and instability of the teaching profession, assuring an improvement in rural schools.

The economy measure calls for the amendment of the sanitary building code law, eliminating the necessity for basements or a three-foot air space under two-story buildings.

—Fort Dodge, Ia. A number of teachers in the schools have threatened the board with refusal to sign contracts following reductions of five per cent in salaries.

TEACHERS' SALARIES.

—Salary increases totaling \$30,000 were agreed upon by the school board of New Bedford, Mass. Superintendent Allen P. Keith was granted an automobile allowance of \$500 in addition to his salary of \$6,000.

—Worcester, Mass. The minimum salary of teachers in the kindergarten, grades one to eight, inclusive, and the preparatory schools, including the teachers of the special subjects, has been increased from \$1,000 to \$1,200 per annum. The maximum salary has similarly been increased from \$1,600 to \$1,800 per annum.

—Phoenixville, Pa. An increase of \$100 has been given to each teacher in the schools for the next year. The increases will make necessary an addition of approximately one mill to the tax rate.

—Pullman, Wash. The board has adopted a salary schedule for both grades and high school. In the grades, the salaries will range from \$1,050 for normal graduates with two years' experience up to \$1,300. Teachers will be given increases of \$50 each year until the maximum is reached. In the high school, the salaries will run from \$1,300 to \$1,500. New teachers in the grades will receive not more than \$1,150 and those appointed in the high school will receive not more than \$1,400 for the first year. Married women will not be employed as teachers where single women of equal training and ability are available.

—Pulaski, Va. Teachers' salaries in Pulaski County have been increased five per cent.

—Salem, Mass. The school board has granted increases of \$200 in salary to teachers. The plan of payment has been changed from a ten-month to a twelve-month plan.

—Marysville, O. The board has adopted a salary schedule which takes into account the instructor's teaching experience and the amount and character of the professional training received. The scale provides for salaries of from \$800 to \$1,095 for grade teachers and from \$1,200 to \$1,500 for high school teachers.

Under the schedule increases of \$25 are given for each year of teaching experience up to six years, making a maximum of \$150. Grade teachers are given credit for normal school or

college work and high school teachers are given credit for college training.

—A single salary schedule for elementary and high school teachers is proposed by the teachers' club at Los Angeles, Calif. Under the plan, high school and elementary teachers having the same educational qualifications and the same teaching experience would receive the same salary. The schedule makes provision for recognizing college credits earned by teachers in attendance at summer sessions.

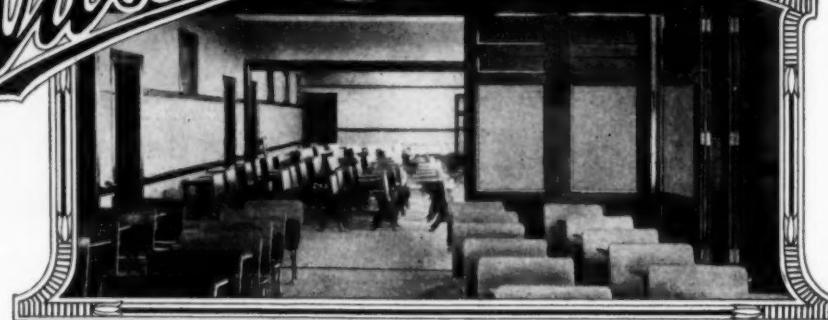
—Rock Island, Ill. The maximum salary for grade teachers has been raised from \$1,300 to \$1,500, and that of high school teachers from \$1,800 to \$2,000. Principals were given increases of \$100.

—Owensboro, Ky. The board has adopted rules governing junior high school teachers' salaries. Under the rules, high school teachers transferred to the junior high school will receive the same salaries as this year. Life certificate normal graduates, with the required experience and additional training, will receive a salary of \$120 a month. Teachers in the junior high school have been elected on condition that their service begins as such when the school is started. If the school is not opened in September, the instructors stand elected to the positions they formerly held.

—New Bedford, Mass. A salary schedule providing for maximum salaries of \$1,800 has been adopted, effective in February. Teachers who have taught in the local schools for one year on a maximum salary are eligible to this increase.

—East St. Louis, Ill. The board has undertaken a study of the single salary schedule for teachers with a view to its possible adoption. The plan which has been proposed by the local teachers' association, would involve a readjustment of salaries.

—The school board at Bellingham, Wash., has discontinued the increase of \$60 granted instructors for their tenth year of service. The new schedule provided increases of \$60 to be paid instructors who had taught eight years, for their ninth and tenth years of service. In an emergency, the board dropped the tenth year salary increase and paid the five year rate to



Wilson Sectionfold Partitions in Blount St. School, Pensacola, Fla.
Walker D. Willis, Arch.

The Day the Teacher was Away

REMEMBER those days when we went to school, and the teacher was away? What bedlam of fun there was with no one to watch us. Or perhaps just a door stood open between our room and the next. What chance did one teacher have to watch two rooms?

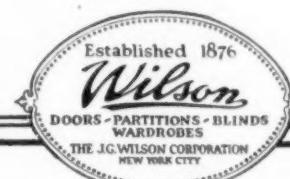
No chance for such a thing to happen now, for with Wilson Sectionfold or Roll-

ing Partitions one teacher can watch over two or a dozen rooms, if necessary.

In a jiffy, they roll or fold out of the way and turn one room into many, or many into one.

May we tell you of the work we have done for thousands of schools? Or you are most welcome to a catalogue.

The J. G. WILSON Corporation
14 EAST 36TH STREET, NEW YORK CITY
OFFICES IN ALL PRINCIPAL CITIES



new instructors. The tenth year salary will be available in 1924.

—Moline, Ill. A new salary schedule which is to become effective in two parts, requires that \$100 be added in the 1923-24 school year, and \$100 in the 1924-25 year. The same schedule applies to the minimum salaried teachers according to the following classifications:

For salaries of kindergarten and elementary teachers, Class 1—First year of service, \$850, increasing \$50 a year, except the 10th, 11th and 12th years, when the increase will be \$100, making a maximum salary of \$1,500 after 12 years.

Class 2—One year of normal school training, but less than two years; or two years of experience, but less than four years, from \$900 to \$1,500 in the 11th year.

Class 3—Two years of normal school training or four years of experience, from \$1,000 to \$1,500 in the ninth year.

The salaries to high school teachers were fixed at \$1,200 for the first year and a maximum of \$2,000 in the ninth year.

—Worcester, Mass. The maximum salary of elementary teachers has been increased from \$1,600 to \$1,800. Increases of \$100 are provided, effective September first.

—Chicopee, Mass. Elementary teachers have been given increases of \$220 in salary, effective in September.

—Aurora, Ill. The west side school board has eliminated the fixed salary schedule for high school teachers. It was voted to pay these teachers on the basis of their training, experience and proved worth to the school system. A salary scale for grade teachers is in course of preparation.

—Joplin, Mo. General decreases of \$10 per month have been made in the salaries of teachers with the adoption of a salary schedule. Following is the schedule adopted for payment of teachers:

Elementary schools, class B, \$75 to \$100; class A, \$85 to \$120; junior high school, Class B, \$85 to \$120; class A, \$100 to \$135, and senior high school, class B, \$130 to \$150; class A, \$130 to \$160. Ward school principals, class 1 buildings, eight or more teachers besides principal, \$160 to \$190, class 2, four to seven teachers, \$140 to \$160, and class 3, two to three

teachers, \$130 to \$140. Assistants to principals regular salary allowance for elementary school teachers plus \$10 a month.

—Fall River, Mass. Elementary teachers now in service, exclusive of principals, have been given increases of \$200, to become effective in September. The increase is over and above what the teachers now receive and the automatic increase under the old schedule.

—Knoxville, Tenn. Salary increases for teachers this year will reach \$20,400. High school teachers whose salaries now amount to less than \$190 a month have been given increases of \$10 per month. Grade teachers who have not attained the maximum of \$130 a month will be given increases of \$5 per month.

—Quincy, Ill. The board has adopted a salary schedule under which salaries are increased in accordance with training, credits and teaching experience. A teacher by attending college may win an increase of \$100 every two years until the maximum of \$1,550 is reached. The minimum salary is \$900 which requires one year of experience. Teachers are advanced at the rate of \$25 a step.

—Joliet, Ill. Salary increases ranging from \$25 to \$150 have been given the teachers. Under a new schedule, beginning teachers will receive \$1,000 a year, plus \$100 for one year of extra training, and \$50 for each five years' successful teaching. Under the terms of the automatic increase, teachers will receive \$50 for each three years of teaching and a yearly increase of \$25 for the following years of service. Teachers who complete a major credit will obtain a \$50 raise, and an increase of \$25 for a minor credit. Raises of \$75 will be given to teachers completing summer courses.

—Springfield, Ill. Special grade and high school teachers receiving less than the maximum of \$1,500 a year have been granted salary increases of \$62.50.

—Kingsport, Tenn. The board of education has adopted rules governing the qualifications of teachers and salary schedules for primary and intermediate teachers, junior high school and senior high school instructors.

Under the rules, primary and intermediate grade teachers must be graduates of accredited high schools, with at least one year of profes-

sional training in normal school or college, and at least one year of successful teaching experience. The minimum salary will be \$675 to \$1,200 a year.

Junior high school teachers must be graduates of accredited high schools, with two years of training in normal school or college, and one year of successful teaching experience. The minimum salary will be \$900 to \$1500 a year.

Senior high school teachers must be graduates of approved colleges and universities, with A. B. and B. S. degrees. The minimum salary will be \$1,000 to \$2,400 a year.

Annual increases in salary are given up to eight years, dependent upon experience, professional training and success rating of the teacher.

The board of education of Newark, N. J., has barred married women teachers from the summer schools. Thus, thirteen women must make way for unmarried teachers. Commissioner Allsop said: "If a teacher has a husband who cannot support her during the summer months she ought to get rid of him."

Upon the recommendation of the superintendent, the school board at Seattle, Wash., has approved an arrangement for an exchange of teachers with the Kansas City schools.

—Dr. F. F. Schlueter has been elected president of the school board at Watertown, Wis.

—Mr. J. C. Sloan has been elected business manager of the board at Port Huron, Mich.

—Supt. W. A. Bass of Covington, Tenn., has been reelected superintendent of schools.

—Mr. L. O. Hoxie, of Decatur, Mich., has been elected superintendent of schools at Ithaca, to succeed L. L. Grettenberger.

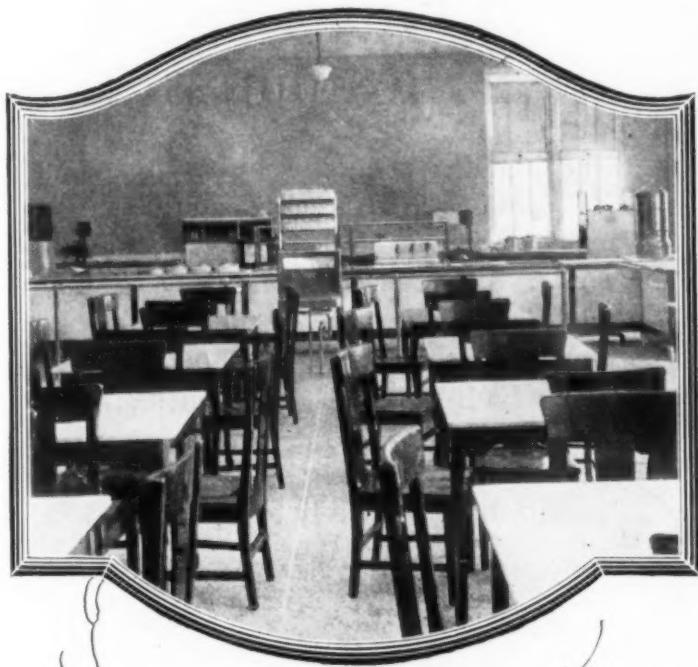
—Mr. Harvey S. Gruver, retiring superintendent at Worcester, Mass., was given a silver coffee service by his fellow members of the Kiwanis Club at a special noon luncheon. Mr. Gruver, as president, wielded the gavel for the last time. He was also given a past president's badge.

—Mr. H. S. Morse has been appointed as business manager of the board of education at Akron, O. Mr. Morse succeeds the late C. M. Woodruff who was killed in an automobile accident last January.

Building Cafeteria Equipment for Quality first

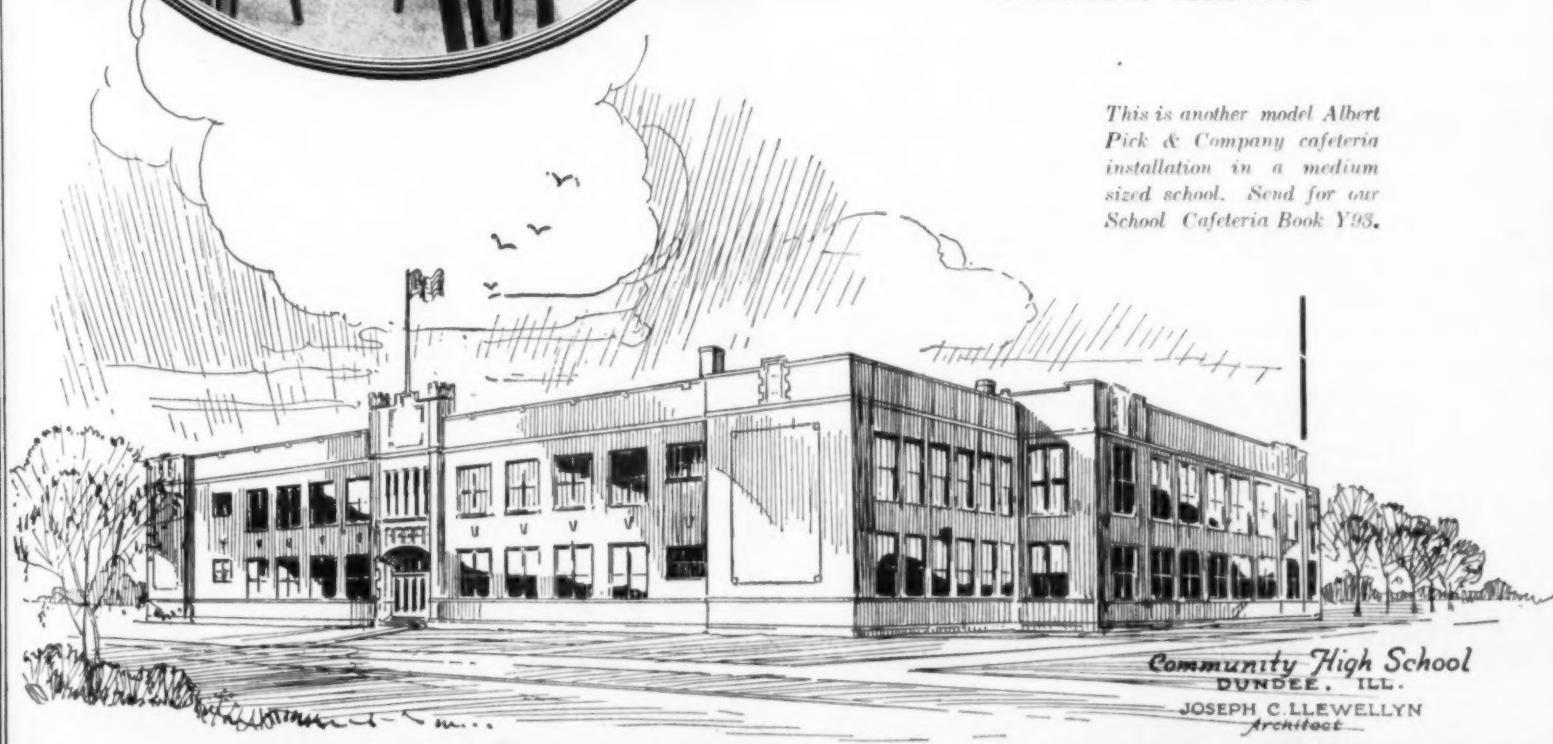
In the planning and equipping of new buildings, whether large or small, School Boards should bear in mind the fact that the School Cafeteria tends to increase the efficiency of the students by affording means of acquiring proper nourishment.

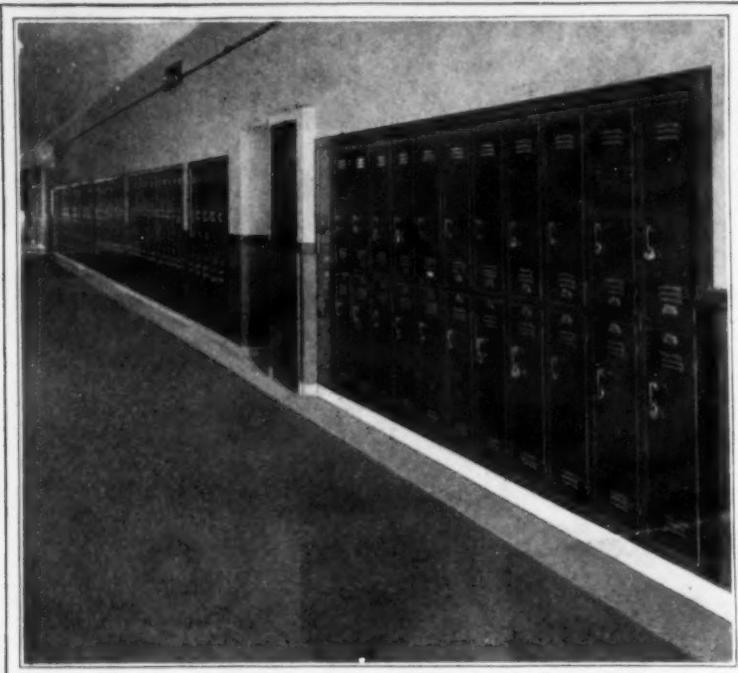
WITH the idea of quality ever foremost, Albert Pick & Company manufacture Cafeteria Equipment that is giving lasting satisfaction to its users everywhere. This is an active policy that has a bearing upon each particular step of manufacturing process from the rigid selection of materials to the advanced production methods that are employed. For this purpose we maintain an extensive experimental laboratory which, aided by the field contact of our engineers, is constantly striving for an improvement of quality, utility and real economy and has resulted in important basic developments in practically every item of equipment we manufacture.



ALBERT PICK & COMPANY
208-224 WEST RANDOLPH STREET
CHICAGO, ILLINOIS

This is another model Albert Pick & Company cafeteria installation in a medium sized school. Send for our School Cafeteria Book Y93.





THE ENDORSEMENT OF A CITY

In Detroit many thousands of Lyon Steel Lockers of all types are giving continuous service—and have for years. Special features of construction make Lyon Steel Lockers unexcelled for use in educational institutions. The doors, are subject to the greatest punishment, cannot sag, bend or get out of shape. The distinctive olive green enamel, developed only after numerous experiments, does not show dirt or finger prints and reflects instead of absorbs the light.

The steady increase in the popularity of Lyon Steel School Lockers among Boards of Education throughout the Country has been brought about solely by their consistent high quality.

Please write to our General Office, or to the district office nearest you, for complete information and list of schools equipped with Lyon Steel Lockers.

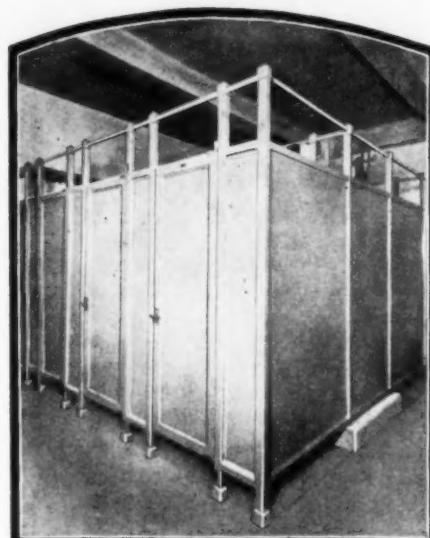
Lyon Metallic Manufacturing Company
Aurora, Illinois

Boston
New York
Rochester

Philadelphia
Pittsburgh
Cleveland
Detroit

Indianapolis
Chicago
Los Angeles

Authorized Agents in Other Principal Cities



A Sanymetal installation in the Church of All Nations, New York City. Buchman & Kahn, Arch.

A Guardian of Cleanliness

MODERN schools require toilet partitions of simple and rugged design—easy to keep spick-and-span under hard service conditions. Sanymetal Partitions have taken preference among architects and school authorities who insist on these qualities. You will find in Sanymetal as perfect a guardian of cleanliness as any toilet partition can possibly be.

Designed for toilets, urinals, showers, dressing rooms, and toilet wainscot. Standard stock units adaptable for any layouts. Made of Armco Ingot Iron. Doors equipped with Sanymetal Gravity Hinges.

Write for School Bulletin No. 6

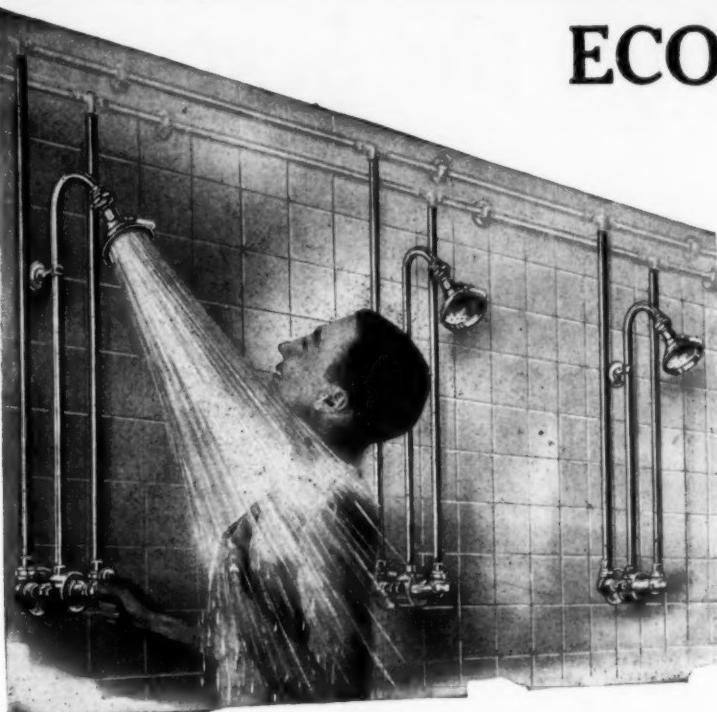


Armco Iron is a feature for rust-protection

THE SANymetal PRODUCTS CO.
989 East 64th St. Cleveland, O.

Sanymetal
Toilet and Office Partitions

ECONOMY



Twelve Gallons of Water for an Invigorating Shower A Feature of Speakman Showers

AND economy is a special feature of the H-895 Institutional Shower shown.

The Mixometer gives the "just right" shower temperature instantly without waste of water. It is all metal. The Anyforce Shower Head is drilled, each hole separately and at an angle, so that the bather receives the benefit of each cleansing spray—none wasted around him.

The Lock-Shield Controlling Stops allow you to set the water volume so that 6 gallons per minute are all that can be used. Two minutes are enough for a good shower.

And then there is the matter of up-keep cost. Due to care in designing, making and finally testing this is negligible. This care built into Speakman Showers assures that they will always be ready for operation. We will be glad to send School Boards interested in showers, any information we might have on the shower in which they are interested. We'll also send a folder on this institutional shower.

SPEAKMAN COMPANY
WILMINGTON, DELAWARE

SPEAKMAN SHOWERS

When specified, shower head with control hidden in it will be furnished instead of the Anyforce Head.

Some Book and Supply Men I Have Known

Robert Remus.

There used to be a big, pompous man who quite regularly called at my office, representing one of the well-known book companies. He probably sold more books for other companies than for his own, because of his very antagonistic attitude to all competitors. He would pick up a competitor's history and remark on the poor binding. Next he might spy a sample geography and say "What wretched maps!" If a reader was in sight it was badly padded so that we, who had purchased received little for our good money. A spelling book was poorly arranged. So on he ranted.

Instead of telling about the many good points of the superior books on the list of the company he was supposed to represent, he apparently preferred to remind me of my many poor judgments in selecting books. This finally became so noticeable that I must confess to squandering some of my valuable time just "stringing him along" on his salesmanship weakness of "knocking" the other fellow's books. I think he finally caught on and his visits became less frequent and finally ceased altogether.

A very fine young man used to come to see me. He was not a salesman. He was as talkative as an oyster. He had a very pleasant smile, was good looking and very manly appearing, but he could not talk. He seemed to expect his customers to do all the talking for him. Now when one comes to your office to sell to you, someone has to say something. In this case the agent was silent. I would have believed him deaf and dumb, but for his pleasant salutation, and his brief answers to my questions. Well, as I say, under such conditions, someone has to talk, and so the customer did it. The young man was too unobtrusive, too polite and too pitiful to ignore. On those same grounds the young man got a few small orders. This seemed the most pleasant way of getting rid of him. Of course his success was so modest that he was soon transferred to some other department of the company where he is undoubtedly working to good advantage.

Flattery in a salesman is poor business, and yet there are those who employ it. Whom do

they deceive more than themselves? The one I now have under my pen is much given to this weakness. He is a very hard working little fellow. At conventions, when all the other fellows have called a halt and are jolly comrades, this man will pester you about his books. If this agent could have some of the graces of the silent one previously described he would be more successful. But he talks all the time. As a result we all try to avoid him at the big meetings, because we do not propose to be bored to death, when there are happy souls to commune with.

No wonder there are so many changes among the book and supply men as there are among the superintendents. But on the whole we must admit that the rank-and-file are a fine lot of men. This is so true, that we are usually very glad to see them. They are usually our equals in education and experience. The average superintendent probably tries to get as much benefit from the salesman's visit as he can, and so the visit is mutually helpful. We like to hear how our friends are prospering and here is someone who has just been talking with them. Then, too, we are real human beings, and we easily lend our ears to a little mild professional gossip. Some of our good commercial friends are adept venders in gentle gossip. To those of us who live off the beaten path, this is sometimes gracefully accepted—so long as it is not malicious or harmful.

There is one who has been at the work for a great many years, who is almost the ideal bookman. He never knocks his rivals. He is always happy to see us, but never effusive. He never speaks ill of another schoolman. He is honest, business-like and thoroughly knows his books. I like to see this man coming, and no matter how busy, or what time of day I enjoy a talk with him. If I am tired his visit will act as a stimulant. Here is a successful salesman.

The next man I have in mind is one who has a rather brilliant mind, but I do not believe he is sincere. He knows his line better than most bookmen, and we always listen to one who

knows what he is talking about. He can be quite sarcastic, and suffers accordingly, but on the whole, he is probably very successful, because he has been with the same house for a great many years.

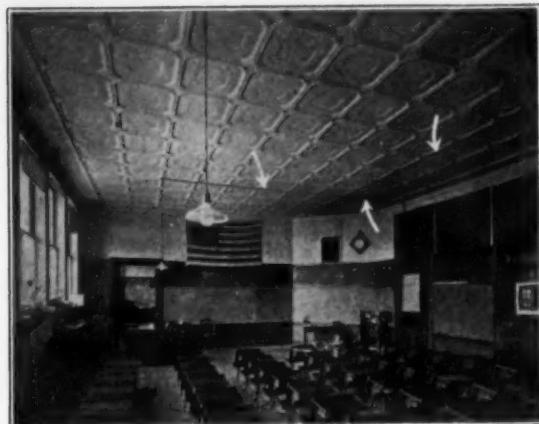
The very best salesmen often talk their supplies to you very little. There is a good fellow who has been visiting me for many years. He never tries to sell me anything. I do not recall ever having given him a verbal order, but I have sent more and larger orders to his house than to any other. The prices are always right and the quality is right. I know that my orders will be well taken care of, and anything wrong will be quickly righted. I know all these things so that it would be superfluous for this master salesman to dwell on them. He finds out about when we expect to place our order and sends me a concise price list of just the things we expect to purchase so when the time comes it is made easy to order.

There is one supply salesman who is more interested in politics than in what he is selling. We always have hot political discussions. I think he enjoys it and while he is a man of considerable force, I do not believe his sales are large. He may sell to those whose political faith is just like his, if there be such, but think how much more successful he might be if he did not antagonize his customers with his political shortcomings.

About twice a year I get a call from a man who always starts in by talking about masonry. A good salesman never tries to capitalize a secret order. Yet in spite of this offensive habit, this man sells a great many books. He is very forceful and he talks fast and to the point when once started. He always has something good for your library and he assumes that you are going to buy. I must confess that I have often placed orders with him when I had solemnly vowed to myself at the beginning of his visit that there was "nothing doing." We hate to be told what we want, and it is only scarcely that a salesman can do this successfully.

Here is a young fellow who is starting in business for himself. He has been more or less successful for a big concern, and now that he has a commercial house of his own he assumes

Wire school buildings the best way!



Wiremold Conduit installation in room of Lincoln School, one of six Public Schools, Bridgeport, Conn., wired throughout with Wiremold Conduit.

HAVE the wires run on the surface, encased in strong rigid Wiremold Conduit. Then when you want to re-arrange class-rooms, to move partitions, you can change the position of your lights, swiftly and economically, without the mess or fuss of tearing open walls and ceilings.

Wiremold is the **best** conduit for surface wiring, because it is sturdy, good-looking, easiest to apply, and least expensive.

For well-wired school buildings

Specify
WIREMOLD
CONDUIT

American Wiremold Co., Hartford, Conn.

that we must trade with him. Of course, we give him a few small orders, just to keep his spirits up and because he practically begs for all he gets. He has a hard uphill fight ahead of him. Would he not have been better off to have remained with the big concern? I am sure we superintendents think so.

I have to be agreeable to one of my regular callers because we both have the same Alma Mater, but he does not have an attractive personality. He gives the impression that he is over-awed with his own profound wisdom but really just to look at him you know he is not deep or brilliant. He is almost as homely as the great Lincoln, but this is a great compliment. If he could but just take honest Abe for his model in thought and speech, even though he did not succeed in approaching very near such an ideal, yet the trying would make a better man of him by a thousand times. Someone said after hearing Calvin Coolidge that he was not a very good speaker, but that in his simplicity there seemed to be greatness. Why do human beings try to be so complex and so profound when on all sides we are so well aware that the great things are the simple things? In science and invention it is only when a thing has been reduced to its lowest terms that the best results are obtained. In painting it is pictures like the "Angelus" that are great. The same is true of sculpture and music, and the same holds in literature and in humanity. Then why assume a part which is not one's natural self at its best?

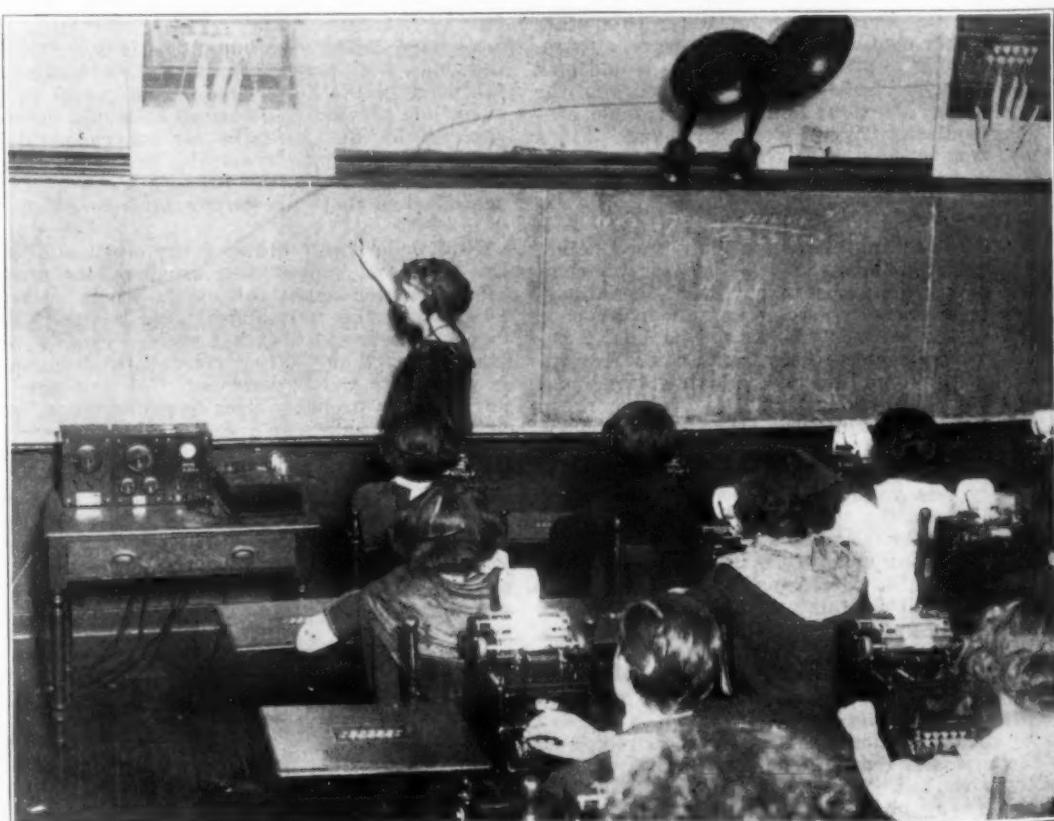
There is just one other whom I desire to say a word about. He is a business getter. He wastes no time in opening his bag of samples. He always has bargains. We are sure to give this man an order, because he always calls off all the important items on his list, and there are sure to be several things that we need to order, and there is surely no reason for delaying. I believe this man must turn in to his company in his own way an order from practically every visit he makes. He does it all so easily and naturally that one does not realize sometimes the size of the order. It is doubtful whether many large orders are voluntarily mailed to him or to his house as a result of his visits, which is, after all, the real test of the great salesman.

The book and supply man are a necessary part of our great school system. They have to meet all kinds and conditions of schoolmen. On the whole, they do this with tact, and they are truly worthy of our great respect.

—Mr. Clyde Blanchard has been reelected as

business manager of the board of education at Berkeley, Calif.

Rome, Ga. A. E. Purviance, recently elected a member of the city school board was elected president of the board at its first meeting of the year recently. O. N. Richardson was chosen secretary.



International Newsreel Photo.

SCHOOL LESSONS BY RADIO IS NEWEST PLAN.

Miss Elinore Hastings of the teaching staff of the Haaren High School of New York, is shown above teaching a class via radio. The questions are transmitted via radio from headquarters of the board of education, and the students of the class are then required to solve the problems. This is the first attempt at introducing the radio in the classroom and is being tried by the New York Board of education, in co-operation with the Westinghouse Station (WJZ) at Newark, N. J.

strong
want
u can
onom-
walls

cause
st ex-

ducation at
ntly elected
was elected
meeting of
was chosen



e teaching a
on, and the
the radio in
ouse Station

Protection

There is a vital question of "protection" constantly before the directors of school and college cafeterias. Merely to make sure of the purity of foods, is not sufficient hygienic protection for the youngsters who depend upon the school cafeteria for luncheon every day.

UNCLEAN tableware and dishes are a breeding place for bacteria. Dishes washed the old fashioned way are dangerously unsanitary and will breed disease. You are teaching hygiene in your classrooms—why not practice it in your kitchen? The Autosan washes dishes thoroughly—first cleaning, then rinsing, and finally sterilizing all your tableware. The Autosan does its work swiftly and efficiently, thus enabling you to eliminate 60 per cent of the expense of chipped and broken china. The Autosan does 90 per cent of the work, requiring a minimum of human attention. You can save half of your present dishwashing payroll.

Economy and sanitation are necessities in the school cafeteria. Let Folder S-B-80 tell you how the Autosan can save money for you and at the same time wash dishes swiftly, efficiently, and hygienically. Write for your copy.

Colt's Patent Fire Arms Mfg. Co.
Hartford, Conn., U.S.A.

B-80

AUTOSAN
TRADE MARK REGISTERED U.S. PAT. OFFICE
DISH AND SILVERCLEANING MACHINE



Model "B" Autosan washes all tableware for establishments serving from 500 to 1000 persons per meal.



Model "A" Autosan for establishments serving up to 500 per meal.

Four square to the world

Oak floors meet the four-fold test of permanence, cleanliness, economy and beauty

Modern schools are built with an eye to future needs. It is final cost, and efficiency years hence that count, and architects specify oak floors because four important factors are possessed by oak flooring to a greater degree than any other floor material.

Permanence—

An oak floor does not deteriorate. Only the finish is subject to daily wear, and may be quickly renewed, whenever necessary, by varnishing. After decades of hard and continued use in factories, hospitals, and public buildings, as well as schools, oak floors give full service.

Cleanliness—

Absolute sanitation is a necessity, and cost of cleaning is a considerable factor in upkeep. Oak floors are ideal, because they are kept free from dust and dirt with least time

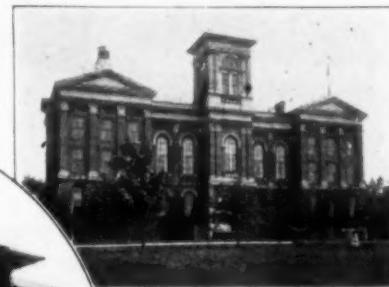
and effort. An oak floored school room is always fresh and bright.

Economy—

First cost is low; up-keep is low, and when service covers decades of hard usage, the economy of oak floors is unquestioned.

Beauty—

Nature grew in oak a grain that cannot be imitated, and that distinguishes oak from all other flooring material. In school, assembly and exhibit rooms, especially, this natural beauty enhances the charm of every decorative feature. Oak makes a beautiful floor, and helps to make a beautiful room.



In the main building of the University of Kentucky, above, and the Administration Building of the Board of Education, Toledo, Ohio, shown at left. Oak flooring gives satisfactory service. Its beauty makes it especially appropriate in exhibit rooms.



Put your flooring problems up to our experienced flooring experts. We will gladly serve you.

OAK

FLOORS.
FOR EVERLASTING ECONOMY

Full information on the subject of oak flooring, its uses and advantages, of value to those interested in the equipment and maintenance of schools, will be mailed upon request. A sample of oak flooring, with oil treatment, will be sent, if requested, to school board members and school officials.

OAK FLOORING BUREAU
1067 Ashland Block, Chicago

Efficient Heating

Demands Radiators so constructed that every square foot is prime heating surface.

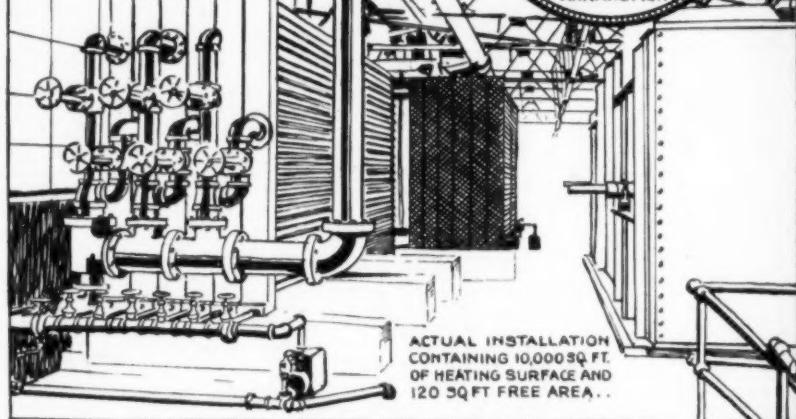
Bayley Chinook Heaters

are built on the "Tube-Within-a-Tube" principle, every tube a complete radiator in itself, free from water hammer, return bends, elbows and nipples. Any tube can be removed without interfering with any other tube. Can be shipped K. D.

Send For Free Book Today.

Bayley Mfg. Co.

Dept. (H)
Milwaukee, Wis.



No School Is Wholly Modern Without the

E-Z RADIATOR HANGER
YOU'LL USE 'EM YET!

E-Z Hangers hang the radiator from the wall, well above the floor, insuring:

- (1) Perfect ease of cleaning under radiators
- (2) Thorough sanitation
- (3) Greatly improved appearance
- (4) No hot legs to soften floor varnish and make dust stick permanently.



Style R

Have the architect for YOUR new school specify them. Cost no more than the old method. Write NOW for full information and list of prominent installations.

HEALY-RUFF CO.
Dept. 17 Minneapolis, Minn.

**BRANCH OFFICES:**

American Foundry & Furnace Company, Bloomington, Illinois.
American Foundry & Furnace Company, Los Angeles, California.
American Foundry & Furnace Company, Milwaukee, Wisconsin.
American Foundry & Furnace Company, St. Paul, Minnesota.
American Heating & Ventilating Company, Philadelphia, Pa.
American Heating & Ventilating Company, Raleigh, North Carolina.
American Heating & Ventilating Company, Richmond, Virginia.
John H. Kitchen & Company, Kansas City, Missouri.

ONE HOUR LATER

Within one hour of starting, the "American System" provides your entire school with fresh moist air at the proper temperature under any weather conditions.

One of our engineers is prepared to survey your needs without cost or obligation. Wire or write our nearest office.

THE AMERICAN FOUNDRY & FURNACE COMPANY

Branch Offices in Principal Cities
Bloomington, Illinois

**BRANCH OFFICES:**

American Warming & Ventilating Company, Cleveland, Ohio.
American Warming & Ventilating Company, Elmira, New York.
American Warming & Ventilating Company, Toledo, Ohio.
Lige Heating & Ventilating Company, Auburn, Indiana.
Michigan Warming & Ventilating Company, Grand Rapids, Michigan.
Atlantic Heating & Engineering Company, Hempstead, L. I., New York.
A. S. Johnson Company, Washington, D. C.
W. H. Johnson & Son Company, Indianapolis, Indiana.

A STUDY OF FIRE INSURANCE AT EASTON, PA.

During the past few months the school board of Easton, Pennsylvania, has been seriously concerned with the problem of adequate fire insurance for protecting the school buildings. In order to safeguard the interests of local taxpayers, the building and finance committee was of the opinion that funds invested in school buildings should be protected fully by insurance against fire losses. With this purpose in view, the committee made a careful study of the insurance problem as applied to the property of the Easton school system.

In the study, two general plans of fire insurance were considered: (a) One hundred per cent flat insurance, and (b) eighty per cent co-insurance. Under the first plan, losses are paid to the extent of the face value of the policies, regardless of whether it is a partial or total loss. The local rate for schools is 56 cents per \$100 per annum. Under the second plan, total losses are paid to the full face value of the policies. In case of partial loss, only a proportionate part of the loss is paid, unless insurance is carried to the extent of eighty per cent of the sound value of the property. The rate for this form is 26 cents per \$100 per annum. From this study it was found possible to carry at the same cost, 115 per cent more insurance under the eighty per cent co-insurance plan than under the one hundred per cent flat insurance plan. Co-insurance is accepted as the most economic method of placing fire insurance.

Sound Values of Property.

In order to carry co-insurance it was deemed necessary to have a basis of sound values on the property of the district. For this purpose, an appraisement of the buildings of the district was undertaken to give the sound values of the several buildings. With the figures on three typical buildings as a basis, the committee applied the percentage increases of 33 per cent and 150 per cent to the remaining nineteen buildings. As a result a total of \$1,157,965 in sound values was compiled for the entire 22 buildings. The figures are only tentative subject to the completion of the appraisement, but have been accepted temporarily by the board of underwriters as a basis for writing insurance at the present time.

Contents.

A complete inventory was made of all furniture, equipment, books and supplies of the district and an appraisement made of all personal property. The appraisement indicates the value of contents in the buildings to be a total of \$125,935. At the present time the school district carries insurance amounting to \$588,000, distributed among 28 agencies of the city. This insurance is carried at a total cost of \$6,859 for five years.

It was apparent that even though a change should be made to the eighty per cent co-insurance plan, enough insurance would not be carried for the proper protection of school property; neither would there be enough insurance to give proper protection under the eighty per cent co-insurance plan. On the basis of the present appraisement of values, it would be necessary to carry insurance amounting to \$1,046,550, or additional insurance of \$457,750 over and above the present amount of \$588,800.

Cost of Insurance.

The average rate covering insurance on the above basis, as approved by the board of underwriters is 26.6 cents per \$100 per annum. As the payment of four annual premiums purchases insurance for a period of five years, it is advisable that insurance be placed on the basis of a five-year period. The rate for this period is \$1.064 per \$100.

Cost of insurance at the present time \$6,859.88.

Increased cost to carry \$457,750 of co-insurance \$3,493.05.

Cost per year of insurance \$2,070.59.

Cost per year of increase \$698.61.

In order to secure proper coverage, it would be necessary that all present policies be cancelled and that a pro rata adjustment of premiums be secured. The return payments, amounting to \$2,227, could be used toward the payment of insurance premiums this year, making the net cost this year \$8,125. Under this plan all the insurance of the school district would expire at the same time.

ARE TEACHERS UNJUSTLY TREATED?

"We admit there is unjust treatment of teachers at times" said Mrs. E. S. H. McCauley,

member State Council of Education, Beaver, Pa., recently.

"As a school director such cases have come under my own personal observation, but in every instance the reaction has been that public opinion has removed the school director who functioned in such an unfair way. There exists a judgment and sentiment that is known as Public Opinion that is the actual ruler in every school district.

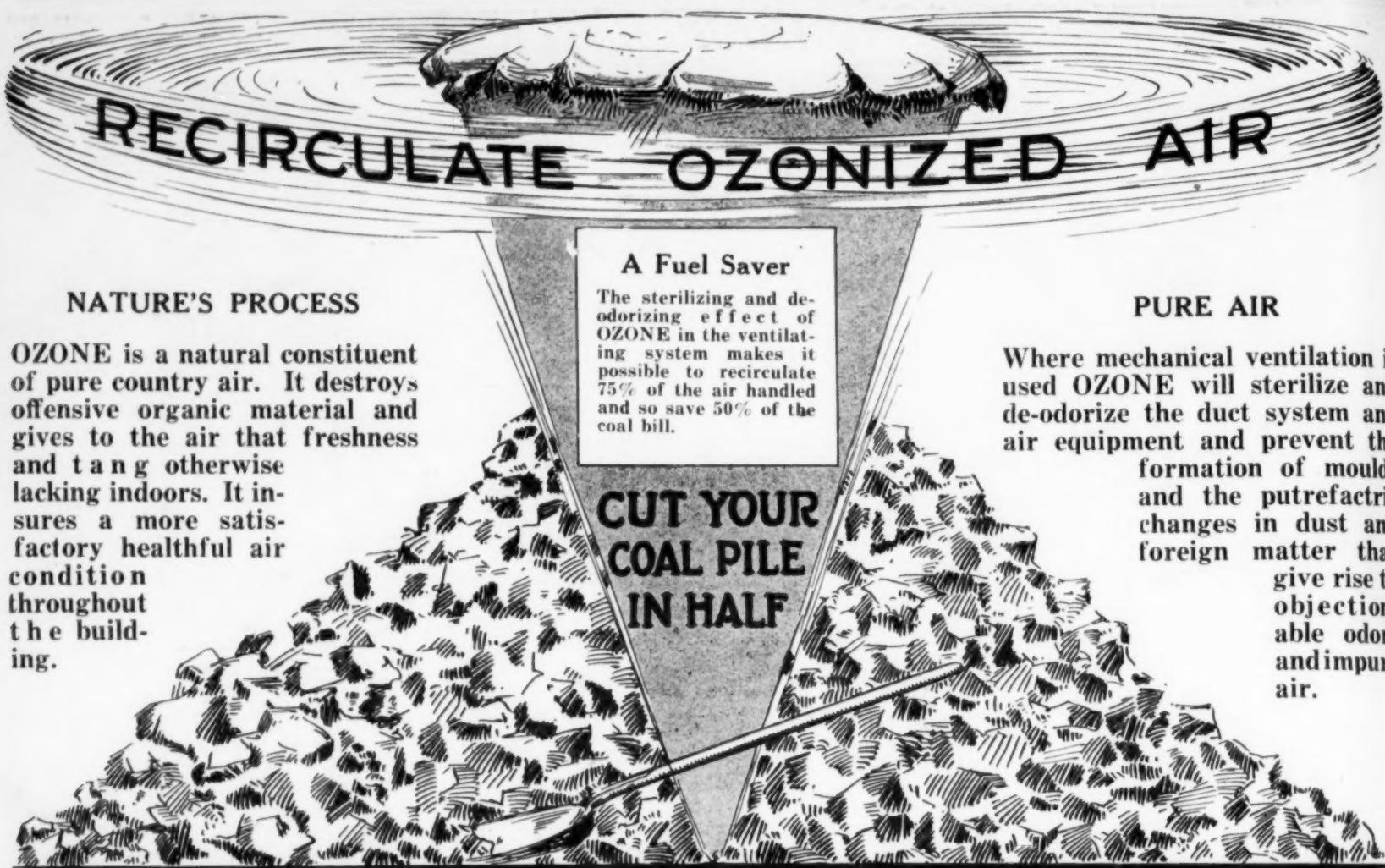
"My personal experience prompts me to say that for every case of unjust treatment a teacher has received at the hands of a board of school directors, I have witnessed many times the number of instances in which the school has been treated unfairly by the teacher. At the present time a contract is a binding agreement for the school district but it is of little or no value to the district when the teacher asks to be released. She may leave the State and there is no law that can detain her. The teacher may bargain with another district, in mid-year, for an increased salary and if he hands in a resignation to the Board there is no alternative, it may as well be accepted. An unwilling teacher in any school system is a very disturbing element."

THE PROGRESS OF EDUCATION IN A SOUTHWEST TOWN.

Tonopah, Nevada, is located in Nye County, in the southwestern part of the state and is a typical silver-mining camp. It came into existence something over twenty years ago and the community at present is entirely dependent upon the mining industry for its livelihood.

The schools of this town have always been a source of pride to the community. There are 705 school children enrolled from a population of four thousand. A total of 29 teachers are employed in the schools, embracing the kindergarten, the grades, the high school and a secondary mining school. The high school is accredited at the state university and at other universities in the neighboring states. Sixteen units are required for graduation.

Teachers in the high school possess degrees from the universities and those in the grades must have had at least two years of normal training. The high school staff is made up of representatives from such states as North Da-



NATURE'S PROCESS

OZONE is a natural constituent of pure country air. It destroys offensive organic material and gives to the air that freshness and tang otherwise lacking indoors. It insures a more satisfactory healthful air condition throughout the building.

A Fuel Saver

The sterilizing and deodorizing effect of OZONE in the ventilating system makes it possible to recirculate 75% of the air handled and so save 50% of the coal bill.

**CUT YOUR
COAL PILE
IN HALF**

PURE AIR

Where mechanical ventilation is used OZONE will sterilize and deodorize the duct system and air equipment and prevent the formation of moulds and the putrefactive changes in dust and foreign matter that give rise to objectionable odors and impure air.

WE WILL BE PLEASED TO FURNISH CATALOGUE ON REQUEST

**1455-57 WEST CONGRESS ST.
CHICAGO, ILLINOIS.**

OZONE PURE AIRIFIER CO.

kota, New York, Maryland, Minnesota and Illinois.

Shortly after the beginning of the upward trend of education in this community, it was decided to build an addition to the old school building in 1911. The wings were added which provided thirteen new rooms, twelve of which are occupied by the grades which had previously been housed in a number of remodeled residences.

The school board which is composed of three members is represented by a mill superintendent, a lawyer and a businessman. This number is sufficiently large for the handling of the school business. The total cost for the operation of the schools the past year was slightly less than \$70,000.



DR. J. GEORGE BECHT,

Appointed State Superintendent of Public Instruction of Pennsylvania.

Dr. Becht is a graduate of Lafayette College and Bucknell University. In 1912 he was made executive secretary of the Pennsylvania state board of education, serving as deputy superintendent under Dr. Thomas E. Finegan whom he now succeeds.

The parent-teacher association which has been established for about a year has done some good work. At the present time they have under way a plan for improving the playgrounds. The cost of leveling, grading, fences and equipment will reach \$7,000.

Mr. Walter W. Anderson, superintendent of schools for the past two years, has recently been reelected for another year.

DR. THOMAS E. FINEGAN IS OUT.

Pennsylvania's superintendent of public instruction has retired. The case is interesting because Dr. Finegan caused a tremendous stir by advancing a progressive school program which met with the hearty approval of the educators of the state, but incurred the opposition of the rural districts. He also became a political issue in that he was opposed by the Democrats and defended by the Republicans.

Dr. Finegan's term expired May 31. Governor Pinchot refused to reappoint him but asked him to remain in office pending an investigation of the educational situation of the state. Dr. Finegan's resignation was to be filed and to be accepted if the governor came to an unfavorable conclusion. The superintendent declined to accede to these terms.

Thereupon the governor appointed Dr. J. George Becht, deputy superintendent, to assume the office, said appointment to be subject to the approval of the senate.

MR. KINGSLEY ENTERS UPON NEW WORK.

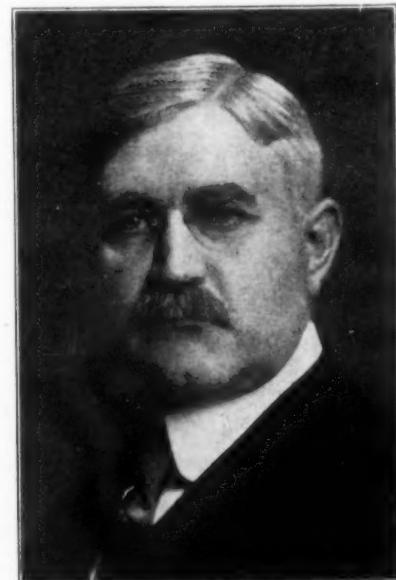
Mr Clarence D. Kingsley, who has recently resigned as supervisor of secondary education for the state of Massachusetts, has entered upon a new line of work connected with the planning of school buildings.

During the present summer Mr. Kingsley will conduct a course on the planning of school buildings at the University of Michigan. In the fall he plans to divide his time between work in Boston University and work as an educational consultant on school planning.

The course at Boston University will deal with the administration of junior and senior high schools. As an educational consultant, Mr. Kingsley will conduct scientific studies on school planning and will advise with school committees and architects.

Another service will be that of working with the local school authorities in outlining a program for specific buildings. Such a program gives the architect information as to facilities which should be provided in new buildings. A third service will be the thorough examination and study of preliminary plans prepared by school architects.

Mr. Kingsley took up the duties of his present office eleven years ago. He has discharged the duties of his position with conspicuous tact, fidelity and success, and by his labors has done much to improve the character of secondary education in the state. During the last five years Mr. Kingsley has devoted considerable time to the planning of school buildings as a side issue in his work as supervisor of secondary education in the state department. He has helped numerous cities and towns to effect important economies in the planning of buildings.



DR. THOMAS E. FINEGAN,

Retired as State Superintendent of Public Instruction, Pennsylvania.

NO school can consistently contemplate automatic temperature regulation without considering the superior features in The Johnson System. Such consideration will terminate in installing The Johnson, because Johnson advantages are so pronounced and obviously essential, because The Johnson System furnishes every requirement to an advanced degree of temperature regulating the school in a manner that is more than ordinarily up-to-date.

Johnson Wall Thermostats are so designed that the pupils in school cannot tamper with the mechanism and destroy its regulation, or destruct it in any way whatsoever.

Johnson Service Company
Milwaukee

TEMPERATURE REGULATION FOR THIRTY-SEVEN YEARS
TWENTY-SIX BRANCHES—UNITED STATES AND CANADA

V What is ADEQUATE Ventilation?

Poor or inefficient ventilation affects the zeal, health and temper of every teacher and the health and progress of every pupil in your school—and therefore the standing of the institution.

Get this matter of Ventilation SETTLED once and for all—NOW—while the School Building is being renovated for fall.

ADEQUATE ventilation means a system that will provide fresh air in every part of the building AT ALL TIMES.

ADEQUATE ventilation is not necessarily expensive.

It usually is UNNECESSARY to install costly power and blower systems and fans and mechanical appliances that require a lot of work and attention and that are costly to maintain.

“GLOBE” Ventilators

provide perfect ventilation—operate continuously and efficiently under all weather conditions.

They are the simple “suction” type that EXHAUST the stale air and operate entirely without the aid of power or any mechanical device whatsoever.

There are no moving parts—nothing that must be greased or oiled, and there is nothing that can possibly get out of order, so there is NO UPKEEP COST. They cannot leak or clog and are built to last as long as the building itself.

Hundreds of schools are getting better results through the use of “GLOBE” Ventilators.

Talk With Your Architect—NOW

And write for complete information and list of prominent schools that are “GLOBE” equipped.

Address
Department J

GLOBE
VENTILATOR CO.
TROY, N. Y.



THE NATIONAL SYSTEM FOR DEPENDABLE TEMPERATURE CONTROL

Universally acknowledged as the most efficient and simplest temperature control for schools, a reputation gained by 22 years of service.

The National System is installed in schools thruout the United States and Canada. The continued satisfactory operation of these installations has demonstrated the correctness of principles involved in the design of the various thermostats and valves employed in this system. The National System will insure a dependable sensitive control of temperature with a minimum of maintenance cost and with the absence of trouble and repairs.

A list of school installations will be sent on request. Investigations invited.

NATIONAL REGULATOR CO.

208 So. Jefferson St., CHICAGO, ILL.

Offices in Principal Cities



Ventilate with Washed Air

Less respiratory trouble among pupils, and a higher standard of both health and scholarship result.

Write for bulletins on the advantages of washed air ventilation.

AMERICAN BLOWER CO., Detroit,

*Branch Offices in All Principal Cities
Canadian Sirocco Co., Ltd., Windsor, Ont.*

(311)

American Blower
Sirocco EXHAUSTERS - VENTILATING FANS - AIR WASHERS - BLOWERS - ENGINES
FOR HEATING, VENTILATING, DRYING,
AIR CONDITIONING, MECHANICAL DRAFT

One of Many Dunhamized Schools in Montreal

The Rushbrooke School here illustrated was designed by D. J. Spence of Montreal. The heating contractor was Thos. O'Connell.



Montreal Educational Institutions are representative alike of school interests and Dunham values in the Commercial Metropolis of the Dominion of Canada.

With their diversified requirements in class rooms, lecture halls, athletic rooms, swimming pools, broad corridors and swinging doors, they each find health and heat-comfort through Dunham service.

DUNHAM
REG. TRADE-MARK
HEATING SERVICE

C. A. DUNHAM COMPANY
230 East Ohio Street, Chicago

A Description of the Marking System in Use in the Schools of Tyrone, Pa.

Last summer a practical plan for regrouping the pupils in the elementary schools was worked out by Mr. W. W. Eisenhart, superintendent of schools at Tyrone, Pa. Several weeks before the close of school in the spring, the teachers were asked to write their estimates of the pupils' abilities upon the sheets provided. During the last three weeks of the term, all pupils were subjected to the standard intelligence tests, reading, arithmetic and spelling tests. The data thus secured was used in determining the placing of the pupils. Each room was divided into one high and low average, or one high average and one low. Provision was made for transfers from one group of pupils to another whenever the conditions warranted. At the end of the school year, a low group pupil in a particular grade was promoted to the low group in the next higher grade. Low group pupils whose native abilities preclude the possibility of reaching the usual 75 per cent passing mark are promoted but to a low group in the next higher grade. Thus, it is hoped to reduce to a minimum the number of repeaters and the cost of educating pupils.

In listing the names of pupils teachers were handed a sheet which they were asked to fill in according to the following instructions.

"Please list the names of all pupils belonging to your school on this sheet after you have carefully determined the group to which, in your judgment, they belong. If you are uncertain about classifying pupils, turn to your course of study and read again, 'How Pupils Are Assigned to Groups.' There is no objection to consulting the Pupil's Report Card as an aid to memory, but it is not intended that this classification shall be based upon an average of period marks."

"Pupils who are A or high B should be listed in the column headed X; those who are low B, C or high D, in the column headed Y; and those who are low D and F, in the column headed Z. Give this matter very careful consideration; it

is important. After each name write figure for age."

The Purpose of a Marking System.

In working out a good, workable marking system it was conceded that it should serve the following aims:

1. It should furnish a permanent record of work done and should be used for future reference.
2. It should help the pupil to know whether he has met the requirements, and should encourage pupils to do consistent, faithful work.
3. It should assist the parent in finding out what the pupil has done.
4. It should furnish a measure of the teacher's work, revealing to her whether it is adapted to the pupil's needs and inclinations.

Marks as a means of grading pupils are important because they furnish an understanding of the reason for marking, they offer a knowledge of the group system of marking, show the difference between class, paper and final marks, and produce an agreement as to the meaning of the "pass" mark.

What to Mark.

In marking present native ability and accomplishment, special account should be taken of such items as: Quantity of accomplishment; quality of accomplishment; improvement; evidence of personal, specific and serious purpose; evidence of initiative; evidence of supplementing knowledge; thinking—organization of ideas.

The Group System.

The group system of marking is more accurate than the percentile. It is based upon the normal frequency curve. Of a large group of pupils, scientific measurement has proven that from two to eight per cent are very superior; from fifteen to 25 per cent superior; from 40 to 60 per cent medium; from fifteen to 25 per cent inferior, and from two to eight per cent very inferior. The percentages hold good for smaller groups also. When marks conform to this distribution, the teacher's marking is as

accurate as it is possible to determine without elaborate scientific measurement.

A pupil's achievement may justify the bestowal of a higher mark than his ability may warrant. A pupil of superior ability may fail to achieve a high standing because of inattention, lack of application, or other reason. On the other hand, a pupil of average ability may merit a high standing because of superior achievement.

The Class Mark.

The class mark is a mark standing for the teacher's judgment of the pupil's classwork. In determining it, the pupil's ability and accomplishment are considered at the time the mark is recorded, without reference to any previous marks, except in so far as they have a bearing upon present ability. The class mark is literal: it may be one of the following letters: A, B, C, D, F.

The Paper Mark.

The paper mark is a mark recorded upon a pupil's test paper, his examination paper, his composition paper. The paper mark is literal: it is one of the following letters: A, B, C, D, F. The paper mark is mainly based upon accomplishment, although other elements are sometimes considered.

The semester-examination mark is determined by carefully examining answers to questions designed to test their grasp of the subject matter covered during the semester. The examination differs from the test in that it aims to train pupils to see relationships that exist between large units of subject matter, to organize knowledge. The examination mark is literal; it is one of the following letters: A, B, C, D, F.

The Final Mark.

The "period" mark and the "year" mark are referred to as final marks. Both are also referred to as "pass" or "not passed" marks. The final mark is largely made up of the pupil's accomplishment, to the extent perhaps of three-fourths of the total credit allowed. Other elements that enter into this mark are: Native ability or capacity, improvement effort or interest, initiative, promptness, honesty, attitude.

The period mark for a particular subject is determined by carefully considering the class marks and the paper marks assigned the pupil



PLATE 598-N
Vitreous china drinking fountain has combination lever handle, self-closing faucet, concealed pressure regulator, vitreous china bubbler and gooseneck spout for filling glass or pitcher. All metal parts heavily nickel plated.

MONCO Plumbing Fixtures are unsurpassed in beauty of design and finish and in utility and durability. Every detail of **MONCO** Fixtures reflect efficiency and economy in operation and satisfaction in use.

That we have succeeded is best attested to by the fact, that **MONCO** Plumbing Fixtures have now been used in the schools throughout the country for over 45 years.

Let us furnish you with further particulars concerning "**MONCO**" Plumbing Fixtures for Schools.

Our catalog is sent free to all on request.

Write today for complete information.

N. O. Nelson Mfg. Co.

Edwardsville, Illinois

St. Louis Missouri

BRANCHES

Salt Lake City, Utah. Houston, Tex. Davenport, Ia.
Birmingham, Ala. Little Rock, Ark. Pueblo, Colo.

Dallas, Tex.

Los Angeles, Calif.
Memphis, Tenn.

Pioneer Manufacturers of Plumbing Fixtures for Schools

HOW PUPILS ARE ASSIGNED.

"D" Work

KNOWLEDGE.
Answers irregular and infrequent; requires much prompting; does much guessing.

Topical Recitation: Infrequent; only partial, detailed questioning by teacher necessary.

Written Work: Contains less than $\frac{1}{2}$ of important facts; no effort to secure good wording, form, etc.

PREPARATION.

Very irregular; covers only part of assignment.

ATTITUDE.

In Recitation: Needs much reminding about correct position; inattentive.

Toward Preparation: Needs much assistance; lacks imagination and creative ability. No regard for team work.

"C" Work

KNOWLEDGE.
Questions answered but must be prompted and done some guessing.

Topical Recitation: About $\frac{1}{2}$ of assignment given; question from the teacher necessary to complete topic.

Written Work: Work contains $\frac{1}{2}$ of important facts; less care shown in wording, form, etc.

PREPARATION. Prepares daily but insufficient time spent upon it; written work frequently not in on time.

ATTITUDE.

In Recitation: Needs reminding about correct position; poor attention.

Toward Preparation: Needs frequent assistance; little imagination or creative ability shown. Not enough regard for team work.

"B" Work

Little effort to respond. Half or less of the assigned work attempted. Failure to hand in written work on time. Guessing at answers to questions. Written work shows little ability. No effort to make up work lost during absence.

"A" Work

KNOWLEDGE.

Memory but not thought questions answered intelligently; no guessing; no prompting.

Topical Recitation: About $\frac{1}{4}$ of assignment given; volunteers some times.

Written Work: Work contains $\frac{3}{4}$ of important facts; careful wording, form, etc.

PREPARATION. Daily; done thoughtfully; written work once in a long while not in on time.

ATTITUDE.

In Recitation: Good position, standing and sitting; attentive.

Toward Preparation: Needs some assistance; fair judgment in use of time. Fair team work.

B—Superior, good

C—Average, fair, passed

D—Inferior, poor, unsatisfactory, credit in doubt.

F—Very inferior, failure

Numerical equivalents of these marks are not given, since mathematical averages of them are not computed. The use of the plus or the minus sign in connection with the assignment of letter marks is not authorized.

Report Cards.

Report cards are issued at the close of each six-week period. The A, B, and C marks are above passing and are entered upon the report card in black ink. The D and F marks are below passing and are recorded in red ink. One or another of these letters is used in entering all marks, whether period or semester-examinations, upon the report card. The card is issued on the afternoon of the fifth day after the close of the six-week period.

Giving Tests.

Tests are unannounced. The questions for the tests are prepared before the time set for the test. Not more than two tests may be given during any six-week period. Test questions are filed in the principal's office.

Examinations.

Examinations are given at the end of each semester. They are called semester examinations and are required of all fourth to twelfth-grade pupils inclusive. The semester examination is not given to determine promotion or credit for a subject; it is regarded as an incident of the pupil's school life just as his daily classroom work. Pupils are not excused from taking the examination because the type of training it provides is not acquired either in daily classroom work or in taking the more frequent classroom test.

Examinations to determine the promotion of a pupil from one grade of the elementary school to another, or to determine whether a high school pupil shall have credit for a subject, either during the regular school year, or during the vacation period, are not allowed. Exception is made in the case of a pupil who has lost considerable time on account of prolonged illness, or one who has been transferred from one school to another.

Promotion and Credit.

In the elementary school, the promotion of a pupil is determined by considering the "year" marks assigned in the various subjects pursued. If a pupil has received an A, B, or C "year" mark in all the subjects studied, he is promoted unconditionally and is given a certificate of promotion.

If his "year" marks are not all passing marks, then his promotion is determined by considering his age, the length of time in the grade, together with his "period" and his "year" marks. In cases where it is considered wise, pupils may be promoted conditionally to the next higher grade. In no case is a pupil promoted conditionally given a certificate of promotion.

In the high school, promotion is by subject. If a pupil's "year" mark for a particular subject is an A or B or C, he is given credit for that subject. To be classified as a sophomore,

(Concluded on Page 123)

The Pass Mark.

The pass mark is a mark standing for the teacher's judgment that the pupil has done creditably both in amount and quality to progress or to take work in advance but no better. The pass mark is C. Five marks are assigned as follows:

A—Very superior, excellent

CLOW

Plumbing Facts for School Boards

**How much does water cost
per thousand gallons?**

Following is a record of an actual test showing difference in consumption of water as used by an open tank closet combination and a CLOW (Madden patent) automatic closet combination:

Water Pressure	CLOW Automatic Comb.		Open Tank Comb.	
	One Flush	Fifty Flushes	One Flush	Fifty Flushes
At 20 lbs.	2 $\frac{1}{4}$ Gals.	105 $\frac{1}{4}$ Gals.	6 $\frac{1}{2}$ Gals.	307 $\frac{1}{4}$ Gals.
At 25 lbs.	2 $\frac{3}{4}$ Gals.	120 Gals.	6 $\frac{1}{2}$ Gals.	321 $\frac{1}{2}$ Gals.
At 30 lbs.	2 $\frac{3}{4}$ Gals.	135 Gals.	6 $\frac{3}{4}$ Gals.	337 $\frac{1}{2}$ Gals.
At 35 lbs.	2 $\frac{7}{8}$ Gals.	142 $\frac{1}{2}$ Gals.	6 $\frac{7}{8}$ Gals.	345 Gals.
At 40 lbs.	3 $\frac{1}{8}$ Gals.	165 Gals.	7 Gals.	352 $\frac{1}{2}$ Gals.
At 50 lbs.	3 $\frac{1}{2}$ Gals.	172 $\frac{3}{4}$ Gals.	7 $\frac{1}{4}$ Gals.	360 Gals.
At 60 lbs.	3 $\frac{3}{8}$ Gals.	180 Gals.	7 $\frac{3}{8}$ Gals.	382 $\frac{1}{2}$ Gals.
At 70 lbs.	3 $\frac{3}{4}$ Gals.	188 $\frac{1}{2}$ Gals.	8 $\frac{1}{4}$ Gals.	412 $\frac{1}{2}$ Gals.
At 80 lbs.	3 $\frac{7}{8}$ Gals.	195 Gals.	9 $\frac{1}{8}$ Gals.	457 $\frac{1}{2}$ Gals.
At 90 lbs.	3 $\frac{7}{8}$ Gals.	195 Gals.	9 $\frac{1}{2}$ Gals.	472 $\frac{1}{2}$ Gals.

The above tests are based on operations of each fixture to each of the various pressures, and with a water meter on each pipe, which is sufficient guarantee of the amount of water consumed.

That is why

CLOW plumbing is used in over 8,000 American Schools—and by nationally known firms like International Harvester, Rand McNally, Pullman, Sears-Roebuck, General Electric, Armour, Swift, etc.

How much do repairs to plumbing cost in one year?

G. M. Badley, of Carroll, Iowa, states that 22 CLOW Automatics installed 10 years had cost \$2.80 for repairs—less than 1½ cents per closet per year.

Use CLOW Plumbing in your next installation

JAMES B. CLOW & SONS

General Offices: 534-546 South Franklin Street, Chicago

Sales Offices in the Principal Cities

THE BRUNSWICK-BALKE-COLLENDER CO.

REG. PAT. OFFICE

CLOSET SEATS

WHALE-BONE-ITE

Toilet Seats

No. 21-9
For Extended Lip Bowls

No. 23-9 Ebony
Price \$9.95 Each
packed ready to attach

No. 18-59
For Extended Lip Bowls
No. 18½-59
For Regular Bowls

Other styles at proportionate prices f. o. b. factory

Sanitary Service Assured
EASIEST CLEANED
Immediate shipments of all school orders
ORDER NOW!

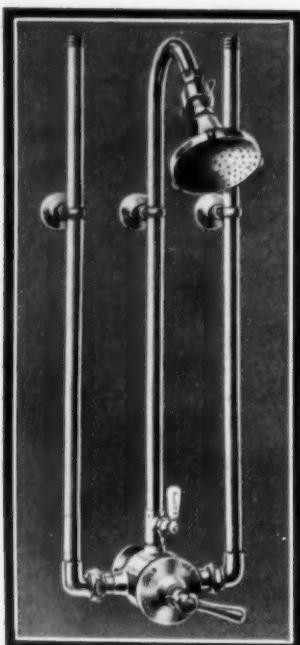
MADE BY

THE BRUNSWICK-BALKE-COLLENDER CO.
623 SO. WABASH AVE. CHICAGO

THE MORE IT IS USED
THE BETTER IT LOOKS

Hinges are at rear, connected with concealed plate—no metal top or bottom—strong, rigid and fool-proof.

Sold by All Leading Jobbers



WHY NIEDECKEN SHOWERS

Give Real Value
and
Years of Satisfactory
SERVICE
Economy of Water
Upkeep Is Negligible
Any Temperature or Force
of Water Desired
THE NIEDECKEN MIXER
Controls the Temperature
THE FLOW CONTROL VALVE
Regulates the Force of Water
Agreeable to the Bather

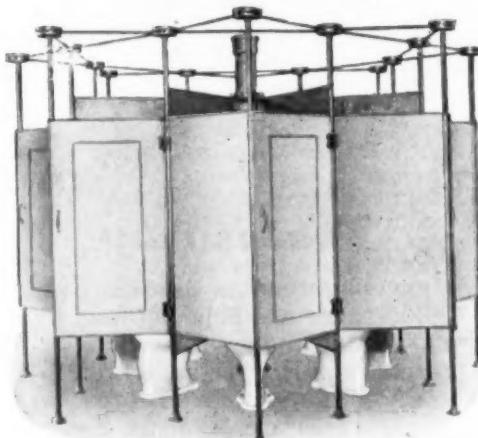
Regulating stops with lock shield furnished when ordered. The shower head is heavy cast brass. The mixer can be set to required temperature, eliminating waste of water. It is easy of access for repairs, which are seldom required; the only tool necessary is a screw driver. Its construction is simple. The valve seats are renewable, the few parts subject to wear can be replaced even after years of use, making it practically everlasting.

Write for Bulletin SB15X

HOFFMANN & BILLINGS MFG. CO.
MANUFACTURERS SINCE 1855
MILWAUKEE, U. S. A.

THE INCOMPARABLE
NIEDECKEN SHOWERS
PATENTED

The Kelly Octopus Water Closet Combination For Schools



8 Water Closets in small space.
Stands out free from Walls.
Does not intercept Light or Air.
Can be installed in Half the Space, in Half the Time,
and at Half the Cost of others.
The large Octopus One Piece Drainage Fitting, not
shown, is included with each Combination.
Hundreds in use.

Details on request.

THOS. KELLY AND BROS.
404 SOUTH KOLMAR AVE.
CHICAGO, ILLINOIS.

WEISTEEL
TRADE MARK
REG. U. S. PAT. OFF.
COMPARTMENTS

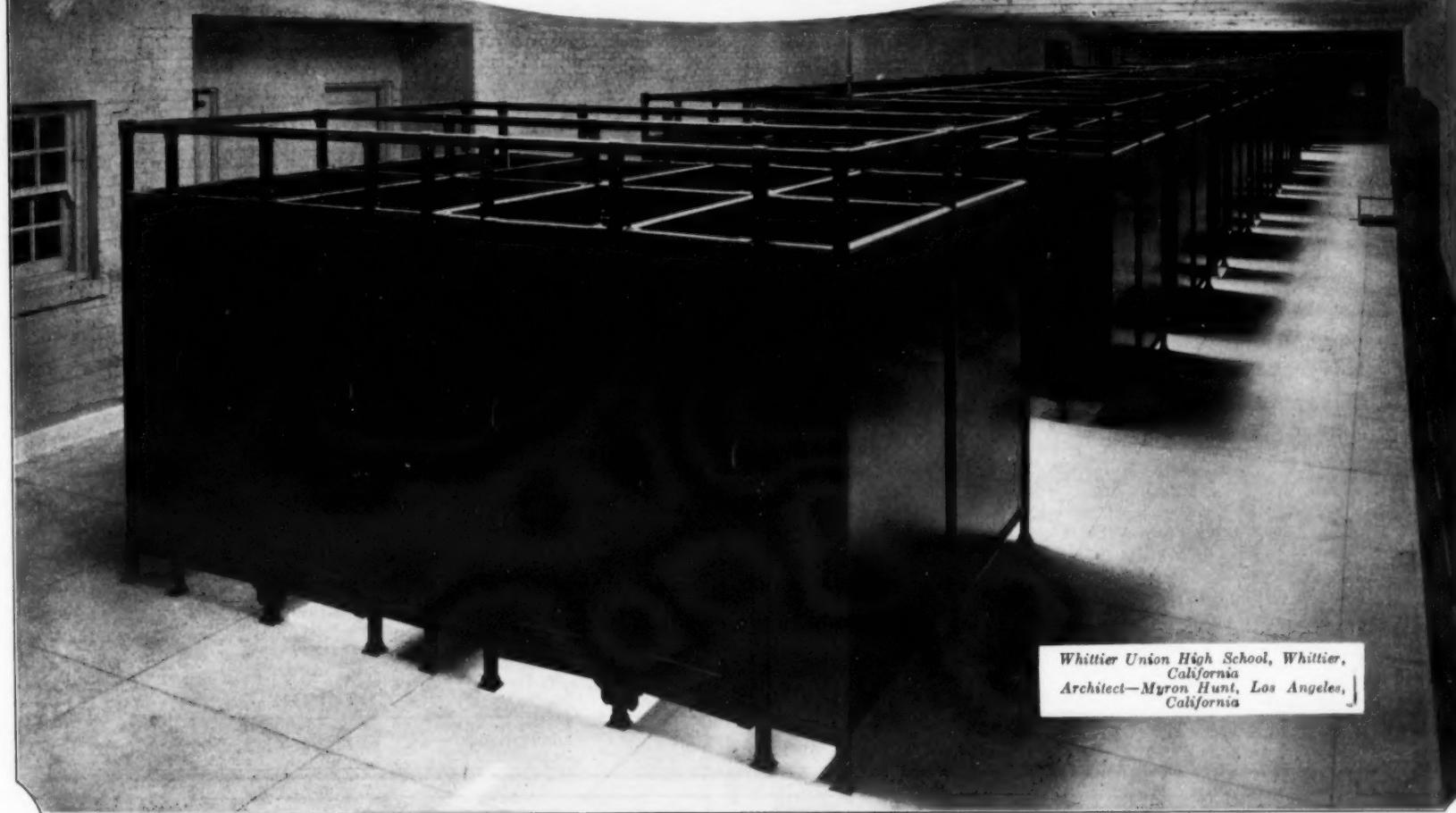
Furniture steel and expert workmanship are combined in a design affording the utmost sanitation. Quality all the way through at low cost. For twelve years they have satisfied school boards and architects in every state.

Write for new complete catalog.

THE HENRY WEIS MFG. CO.

Factory and Sales offices:
ATCHISON, KANSAS

Whittier Union High School, Whittier,
California
Architect—Myron Hunt, Los Angeles,
California



(Concluded from Page 120)

a pupil must have earned at least three units; to be classified as a senior, a pupil must have earned at least twelve units. In the high school, no credit is allowed for the partial completion of either a whole or a fractional unit course.

Graduation Requirements.

An academic diploma is awarded a high school student who has earned the following: Three and one-half units of English; three and one-half units of history or social studies; two units of science; one unit of mathematics, and additional units to make a total of seventeen. In making up additional units, students must offer at least two units of a foreign language to receive any credit for the language. The commercial diploma is given to students earning credit for all work offered in the commercial course. A diploma is given to pupils who earn seventeen units selected from either the academic or the commercial courses. Pupils awarded the academic diploma receive college certification in all courses in which his "year" mark is either A or B. Pupils given the commercial diploma are recommended for positions in commercial life provided the "year" marks are A or B.

The names of high school students likely to meet the requirements for graduation are selected at least five weeks before the close of the school year at a conference of the superintendent and members of the high school faculty. Similarly, the list of honor students is selected at a subsequent conference of the same faculty group. At this conference the names of pupils who will represent the class at the commencement exercises are selected from the special honor list of students.

—Naperville, Ill. A very efficient health program has been in operation in the schools for the past few years and as a result the schools have not been closed because of a contagious disease for a period of fourteen years. Under the rules, a pupil absent three days on account of illness, must consult a physician and secure a health certificate. The certificate is filed with the principal of the building on re-admittance to school. During periods of severe colds or sore throats, pupils must visit a physician and

obtain a health certificate before returning to classes.

MEDICAL INSPECTION IN THE SCHOOLS.

"The child has a right to his highest personal beauty, and not to be merely a bag of bones. When you see a child on the street, think for yourself, is that child as beautiful as he might be, is he well nourished, do his eyes shine, is he the best child we can make out of the material, is he going to last for the long haul? To make this kind of a child is the job of school inspection."

The above is quoted from an address recently delivered by Dr. Caroline Hedger of the McCormick memorial fund Chicago, an authority on medical inspection in the schools. She urges protection against contagious disease, medical attention to physical defects, air and exercise and wholesome nutrition. She holds that the American mother must give more attention to her children. "I do not believe that the school should feed the child" she says. "The school did not create that child, and the ones who created him should feed him."

The goal of the agencies concerned in child welfare, she maintains, should be to rear "the man who earns his three meals a day, and is not a drag on anybody."

**STATES ADVANCE IN SAFEGUARDING
HEALTH OF CHILDREN.**

A total of 22 states now require the physical examination of every child applying for an employment certificate, according to a recent bulletin on "Physical Standards for Working Children," issued by the United States Department of Labor through the children's bureau.

One state, Virginia, has advanced beyond other states, in that it now requires the examination of every working child at regular intervals during the years when he is susceptible to the strains of industry. In certain other states a child must be reexamined when he goes from one employer to another, but since he may remain with his first employer until he passes the certificate age, this is not so adequate a provision as the Virginia law.

In addition to 22 states requiring physical examinations before employment certificates

are granted, eight others and the District of Columbia allow the certificate-issuing officer to require examination when he is in doubt as to the child's physical fitness. In eighteen states there is still lacking any legal provision for examination even when a child first enters employment.

PROVIDING FOR AILING CHILDREN.

The Cardiac committee was organized in New York City four years ago for the purpose of helping children in the public schools afflicted with heart disease. Classes are maintained in eight different sections of the city. The board of education appropriated \$25,000 for a survey and for special equipment. The following is the daily program for the care of the children:

8:30-9:00 Arrival. Cup of warm bouillon given.
9:00-9:15 Rest in reclining chairs. Observations by nurse to determine pulse rate, temperature and other physical conditions.

9:15-10:15 School program.

10:15-10:35 Recess and recreative exercises.

10:35-12:15 School program.

12:15-12:45 Lunch period. Warm lunch served.

12:45-1:45 Rest period for all children in reclining chairs.

1:45-3:00 School program, including specialized physical training exercises. These exercises are for selected groups arranged in accordance with the recommendations for physical exercises provided by the cardiac specialist in charge of each child.

3:00-3:15 After school recreation period. Rest in reclining chairs for observation to determine pulse rate, temperature and other physical conditions in relation to the amount of school work done during the school day and as a guide for after school recreation activities.

3:15-4:15 After school recreation period. Outdoors in pleasant weather.

4:15-4:30 Quiet games for all children. Hot drink in cold weather, or glass of milk and graham crackers before dismissal.

4:45-5:00 Walk home for exercise. Children unable to walk use trolley or bus service wherever possible. Dismissal in winter at an earlier time, because of the shorter daylight hours.

INTERNATIONAL-AUSTRAL STEEL WINDOWS ARE EQUIPPED WITH SHADE BRACKETS AND PULLEYS. SHADES MAY BE DRAWN WHILE SASH IS OPEN IN ANY POSITION WITHOUT INTERFERING WITH VENTILATION. THE SHADES THEN ACT AS AWNINGS AND SECURE PERFECT CONTROL OF LIGHT IN THE SCHOOL-ROOM. SEE SKETCH OPPOSITE.

MANUFACTURED BY
INTERNATIONAL CASEMENT CO., Inc.
FACTORY AND EXECUTIVE OFFICES: JAMESTOWN, N. Y.

BRANCH SALES OFFICES:
101 PARK AVENUE 49 FEDERAL STREET 58 E. WASHINGTON STREET
NEW YORK CITY BOSTON, MASS. CHICAGO, ILL.
CHEMICAL BUILDING
ST. LOUIS, MO.

AGENTS IN ALL PRINCIPAL CITIES

Malnutrition a Serious Problem.

The National Child Health Council, in a report recently published by the United States Public Health Service, declares that at least 26, and possibly 33 per cent, of the school children of the country suffer from malnutrition, or general physical under-development. Malnutrition, according to the report, is not confined to any one class or race; in some cities it is apparently as prevalent in the homes of the well-to-do as in those of persons of more limited means. The condition is evidenced not only by weight and growth records but also by listlessness, lack of color, dullness, and sometimes by restlessness and irritability.

HYGIENE AND SANITATION.

—Manchester, Mass. In the interest of better health in the schools a good health program has been inaugurated. In this direction, steps have been taken to screen all the schoolroom windows against the evils of the common housefly. In the past, the pupils and teachers during certain months, have been bothered with flies and equipment has been damaged by flies. Since the windows were screened, much improvement has been noticed. The children are quiet and happy, the rooms are more attractive and the teachers have a better atmosphere in which to work.

The cost of the screens is much reduced by giving the work to the manual training department. In this way full length screens can be made for slightly less than a dollar apiece.

NEW RULES.

—Worcester, Mass. The school board has revised the rules governing the payment of janitors. The rules read:

Janitors will be paid by contract, the contract depending upon the size of the building. For the purposes of the following sick benefits, and for present or possible pension legislation, no janitor will receive more than \$33.75 per week for personal services.

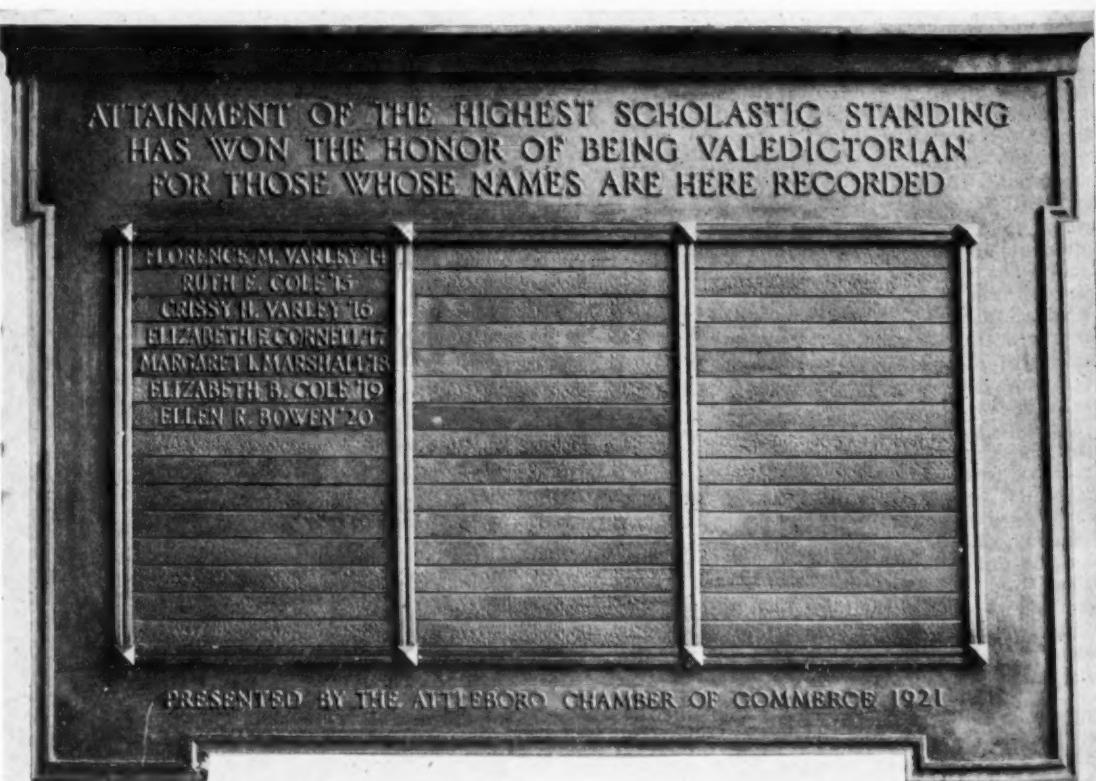
Janitors who, on account of personal illness, are absent from their buildings, will be paid portions of their regular payments for day school work during such absence as follows, unless the regular payments exceed \$33.75 per week, in which case the allowance will be based on a payment of \$33.75 per week.

Janitors who have served less than ten years, will be allowed 25 per cent for a period not exceeding four weeks.

Janitors who have served more than ten years, will be given fifty per cent for the first week, and 25 per cent for each succeeding week for a period not exceeding three weeks.

—The school board at Erie, Pa., has been asked to approve a set of rules to govern the competitive athletic activities of the various

high schools within the district. Under the new rules, such athletic activities must be placed under the control of the director of physical education and six members appointed by the school board. The committee is to have absolute control of the city championship athletic activities and is to recommend such rules and regulations as may be necessary for the supervision of athletic activities in the various high schools.

**HONORING THE VALEDICTORIAN.**

A bronze tablet has been placed in the main corridor of the new high school building, Attleboro, Mass., for recording the names of the valedictorians of the successive graduating classes. The tablet was presented by the local Chamber of Commerce and is intended not only as a permanent record of honor but also as an inspiration to present and future students. The valedictorian is chosen annually from the graduates on the basis of scholarship.

ALUNDUM SAFETY TILE PRODUCTS

Are Meeting Schoolhouse Requirements

This list of school buildings either recently completed or now under construction, should be sufficient evidence of the practicability of using Alundum tile with various types of building construction.

The two outstanding features which recommend this tile for schoolhouses are a safety or slip-proof surface and economy of installing entrance floors, corridors and stairways that do not wear away and do not become smooth.

The principal ALUNDUM SAFETY PRODUCTS used in school buildings are a vitrified tile which is furnished with a rounded nose for stair steps and a semi-vitreous product which is furnished in the form of stair treads, slabs, platforms and in standard tile sizes.

The latter appeals to the architect when he is desirous of maintaining a certain color scheme since it gives him a variety in choice of color combinations.

CALIFORNIA	MICHIGAN	Utica
Los Angeles	Ann Arbor	Utica
Belvedere School	Back Grade School	Brandagee
Salinas	Miller Ave. School	New Rochelle
Salinas High School	Benton Harbor, School	Huguenot
San Francisco	Durand	NORTH CAROLINA
Emerson School	Durand High School	Roanoke Rapids
Crocker School	Grand Rapids	Junior-Senior High
Amazon School	St. Adelbert	School
Grant School	Ionia	OHIO
Sloat School	Emerson School	Cleveland
Parkside School	Jackson	Thos. Jefferson Schl.
Santa Barbara	Seymour	Collinwood High
Wilson School	Bennett	School
Lincoln School	E. Lansing	Lincoln School
FLORIDA	Agricultural College	John Adams School
Pensacola	Mt. Morris	Benj. Franklin Schl.
Pensacola High Schl.	Mt. Morris High Schl.	West Technical High
D. K. Yonge School	Northport	School
CONNECTICUT	River Rouge	Columbus
Hartford	Three Rivers	New East High Schl.
Hartford High School	Wyandotte	Clinton School
So. Manchester	High School	Kent
Ninth Dist. School	Kalamazoo	Kent High School
COLORADO	Lincoln	Cleveland
Boulder	MINNESTOA	Hawthorne School
North Side Grade	Cloquet	Norwalk
Manitou	Collegeville	St. Pauls Parish Schl.
Manitou School	St. Johns University	Springfield
ILLINOIS	Minneapolis	Wittenberg College
Rock Island	St. Bridget School	Youngstown
Augustana College	Moorhead	Tremont Elementary
INDIANA	Moorhead	School
Gary	Virginia	OKLAHOMA
Froebel School	Lincoln	Skiatook
Whitewater	- NEBRASKA	Thomas
Franklin Township	Gering	PENNSYLVANIA
High School	Grade School	Cannonsburg
IOWA	Lincoln	Third Ward School
Cedar Rapids	High School	Philadelphia
McKinley School	Omaha	No. Cramer High
Roosevelt School	Technical High Schl.	School
Clinton	Scottsbluff	RHODE ISLAND
New School	High School	Providence
Ottumwa	- NEW JERSEY	Brown University
High School	Clifton	(Chemical Lab.)
Sioux City	No. 15 Hyland and	SOUTH CAROLINA
North Junior High	Gregory Ave.	Charleston
School	Newark	Bishop England
Vinton	Conklin Parochial	High School
Waterloo	School	TEXAS
High School	Abington Avenue	Orange
KANSAS	Alexander Street	Anderson
Independence	Charlton Street	UTAH
High School	Chestnut Street	Salt Lake City
Coffeyville	South 8th Street	Kimball
KENTUCKY	McKinley School	VIRGINIA
Covington	Seymour Vocational	Norfolk
11th District School	Swedesboro	Colored School
MARYLAND	Swedesboro High	WASHINGTON
Baltimore	Trenton	Seattle
Clifton Park High	Klackner School	Garfield School
School	- NEW YORK	Ravenna School
Montabello	Buffalo	Roosevelt School
MASSACHUSETTS	No. Junior High Schl.	Gatewood School
Framingham	Corning	Greenwood School
Somerville	Corning Free Acadmy.	Broadway
Somerville High Schl.	Ithaca	WISCONSIN
Wakefield	Chemical Lab., Cor-	Ashland
High School	nell University	C. E. Latimer
Worcester	Niagara Falls	CANADA
Girls' Trade School	No. Junior High Schl.	Montreal
Rice Square School		Catholic High School
Tatnuck School		

NORTON COMPANY, Worcester, Mass.

NEW YORK
53 Park Place

MIAMI,
CHICAGO
11 No. Jefferson St.

DETROIT
222 W. Congress St.

11 No. Jefferson St.
COMPANY OF CAL

233 W. Congress

VIRGINIA, LIMA



THERE IS NO TIME TO LOSE

While we can give very prompt service on Locker shipments, the time spent in planning the installation, transit, and the time necessary for erection, will bring the opening of the fall term all too soon, unless preliminary arrangements are made now for your new Lockers.

By giving the Locker problem immediate attention, Berloy Lockers can be in place and ready for the fall opening of school, without any frantic, last-minute rush.

Our complete catalog Y-7 will assist you in deciding upon suitable types and sizes. Ask our nearest office for it.

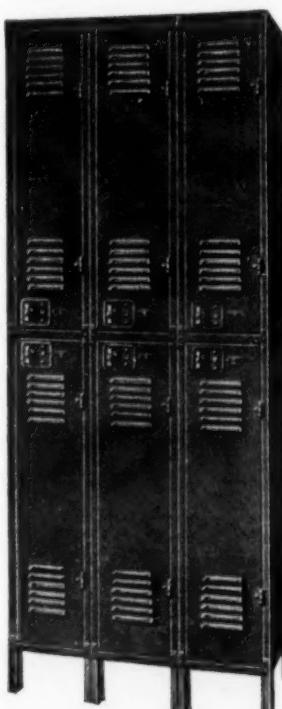
B E R L O Y

STEEL LOCKERS

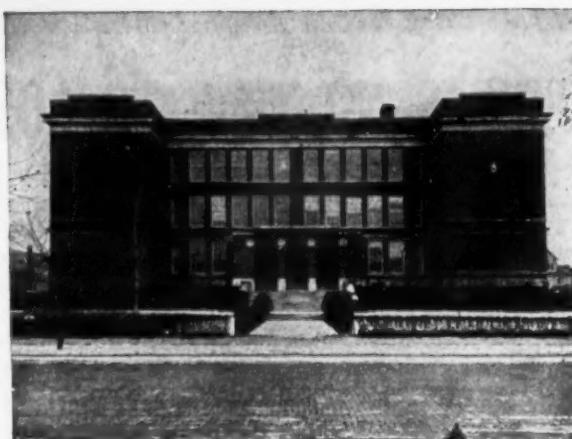
THE BERGER MANUFACTURING CO.
Canton, Ohio

Boston
Philadelphia
St. Louis
San Francisco
Los Angeles
Pittsburgh

New York
Chicago
Kansas City
Minneapolis
Dallas
Jacksonville



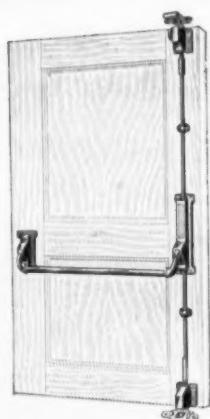
B
BERLIOZ



**One of the 34 CLEVELAND, OHIO, SCHOOLS
recently equipped with**

"SMITH'S IMPROVED" PANIC EXIT LOCKS

Our **Gravity** Exit Lock is the most perfect Mechanical Expression of the **Exit Lock Idea** that has ever been developed. It is the **Exit Lock** with **Two Locks** and without a **Single Spring** in either lock.



It is the Exit Lock with **Lever Action** at the **Crossbar** to open the Door. There is **No Spring Action** and **No Spring Tension**. It is the **One Exit Lock of Unfailing Operation**, built on **Everlasting Principles** for **Everlasting Service**.

WRITE for our NEW CATALOG No. 20.

Another remarkable ALL RIM Device, is "SMITH'S IMPROVED" HORIZONTAL RIM EXIT LOCK, which contains the following Features:

Easily and Quickly applied, because no MORTISING is required.

Contains only ONE SPRING (that which throws the Latch Bolt), even when furnished with Cylinder, and Knob or Handle for OUTSIDE OPERATION.

FRANK F. SMITH HARDWARE CO.
79 Clay St.
Newark, N. J.

The Lock Smith's of Superior Exit Devices.

Lupton

"PROJECTED" SASH



More light and air are gained by using these graceful solid steel windows. No weight boxes—no clumsy wood framing—no sticking sash that refuse to budge. The tilting ventilators exclude ordinary rain and deflect drafts, and give 66 per cent ventilation, against 50 per cent for sliding sash.

Cost is surprisingly low.

Ask your architect, and write for Catalogue 110.

DAVID LUPTON'S SONS COMPANY

Clearfield and Tulip Sts.

Philadelphia

*Chicago
New York
Pittsburgh

Boston
St. Louis
*Cleveland
Dallas

*Detroit
*Buffalo
*Atlanta

*Warehouses in these cities

Canadian Manufacturers: The A. B. Ormsby Co., Ltd., Toronto

Sheldon Builds



SCIENCE LABORATORY TABLES

For: Chemistry, Physics, Biology, Agriculture and General Science. Strongly constructed; beautifully finished; pedagogically correct.



DOMESTIC SCIENCE AND DOMESTIC ART TABLES

Domestic Science Tables equipped with Sheldon magnesium enamel tops. Guaranteed 10 years against leaking, cracking or warping.



MANUAL TRAINING BENCHES

Built for rough usage, will stand the pulling and tugging of irresponsible students. Vises guaranteed unconditionally for ten years.



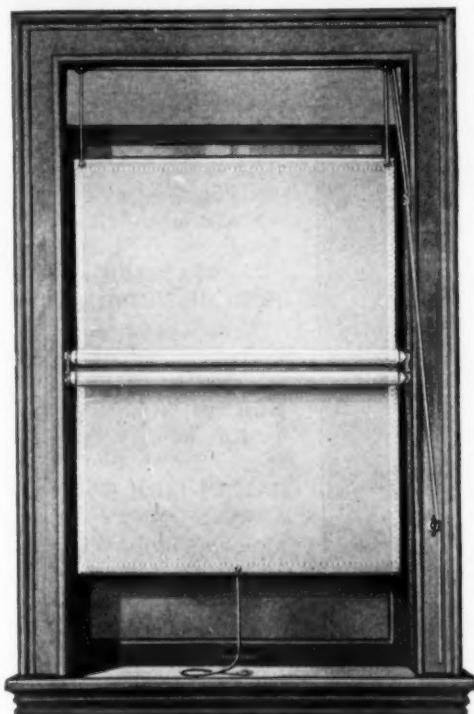
DRAWING AND ART TABLES

Designed to give the highest pedagogical efficiency to the art and drawing departments.

*A Postal Card Inquiry Brings Our Latest Catalog
88 Pages, 174 Illustrations, 10 Model Layouts*

E. H. SHELDON & CO.
Laboratory Tables, and Vocational School Furniture
MUSKEGON, MICHIGAN

Maxwell's School Shades Save Eyesight and Increase Efficiency



Maxwell's Aranlite Shade
mounted inside casing.



MAXWELL'S AIRANLITE DOUBLE ROLL CANVAS SHADES

(Registered U. S. Patent Office)

Are the Best and Give the Greatest Satisfaction

For use in Schools, Offices, Hospitals and public buildings.

Can also be made of any Standard Shade Cloth.

Can be mounted inside or on outside of casing.

Efficient, good looking, economical, trouble-proof and will last for years.

Can be instantly adjusted.

Effective

Durable

Good Looking

Easily Adjusted

Cannot Get Out of Order

Makes possible a proper circulation of air and insures an abundant light distribution.

Fixtures in both drawings are exaggerated in size to show details more clearly.

Can be obtained from leading School Supply Houses.

Write for Circulars.

S. A. MAXWELL & COMPANY
3636 Iron St.

For service and quality use Maxwell's Dependable Window Shades.

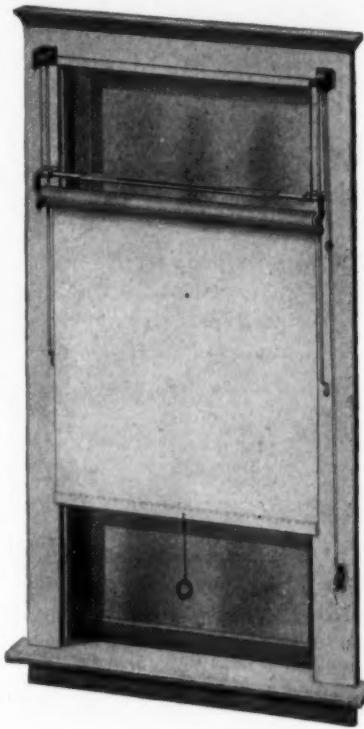
THE "ADJUST-OR" WINDOW SHADE

(Patent Pending)

The most efficient adjustable single shade on the market. Is simple to operate and is effective in regulating light and permitting window ventilation. Operates smoothly and easily. Where a single shade is desired the Adjust-or is the ideal shade. Yields maximum efficiency at a minimum cost.

Can be made of canvas or any standard shade cloth.

Can be mounted inside of casing or on outside of casing or jambs.



CHATS DURING RECESS.

Now some fellow down East has discovered that the radio will eventually eliminate the teacher. He says the "university of air" is on the way. A lesson is broadcasted from the superintendent's office to classrooms all over the land instructing millions of pupils at one and the same time. That ought to be welcome news to the school board that is hard pressed for funds.

Edison says that movie films will soon replace books in the schoolroom. That settles the textbook business. But, what shall we do with the various state textbook commissions? Turn them into censorship boards?

Here is a squelcher! When the Sumner, Washington, school board called a taxpayers meeting to discuss school finances the editor of the American Standard of that city said:

"The Standard urges that you attend this meeting and listen to the diagnosis of your case that you may learn how sick you are and why you are ill. Get first hand information on the proposed remedy and decide whether or not you will take anaesthetic and allow your property confiscated by degrees, or whether you prefer to have your purse taken from you just like the doctors do your appendix."

Mother and daughter graduated at the same time at the Moline, Ill., township high school. The mother managed her household in an excellent manner while she attended school with her daughter. There are many mothers that need the same sort of education and daughter companionship.

More than five hundred New York City teachers got together for a luncheon meeting where everybody was a guest of honor and nobody was called upon for a speech. Well, what do you know about that!

The Mead, Colorado school board sometime ago made the ruling that the superintendent must be a married man. The newly appointed superintendent, L. G. Gribbling, is a single man, but has been given time to qualify by next spring. He has promised to qualify.

In reporting on the success of high school graduates at college, Superintendent John R. Patterson of Bucyrus, Ohio said: "Out of thirty who entered college last year twenty-five passed successfully the first semester, and those who do

not pass generally are the influential—and that's the hell of it" he added. Well, he probably uttered quite tersely a big truth.

At Tecumseh, Michigan the superintendent found it expedient to whip a pupil. Thereupon the father whipped the superintendent, went into court and paid his fine. Now there is one more parent who has a good whipping due him.

The slate age in the history of schools! At Victoria, B. C., the school board considered the elimination of paper pads in the interest of economy. And then someone said: "Going back to the slate age? No, Never." And the paper pad will continue.

When the teacher's salary raise was before Congress, the Washington mothers crowded the galleries ready for a demonstration in aid of the measure. After they applauded, they were admonished not to do so again, and then the proposed raise was tabled by a vote 103 to 14. Rousing demonstrations do not raise salaries.

The city administration of Buffalo, N. Y. denied the increase of the superintendent's salary as fixed by the board of education. Then the latter employed a lawyer to fight the case in court, and won. Now the administration must pay both the salary increase and the lawyer's fees.

Dr. Henry S. Pritchett's recent attack on the country's school system has had some effect. An alderman in New Bedford, Mass., after reading the attack said: "Apply the brakes. No junior high school for this town!"

"Fur flies at city school board meet when Mrs. Miller charges double-cross practiced despite secret agreement." All this constitutes a headline in a Knoxville, Tenn. newspaper. And would you think that a southern school board would wear furs at this time of the year!

A writer recently inquired whether business women were better dressed than teachers. Well, that depends on what you call good dressing. The woman teacher has refrained from the extremes in scantiness of garment and variety of color.

The school board of West Hazelton, Pa., meets in an eighth grade classroom. The pupils of that room have now petitioned the board members to refrain from smoking. That board has chosen the wrong meeting place.

A school principal at Kewanee, Ill., went into bankruptcy, owing \$10,530.73 with \$1,500 assets. The main items of indebtedness were grocery bills, coal bills and garage bills. He evidently reasoned that if the school board didn't come across sufficiently the creditors would have to. Another way of making ends meet between a low salary and the high cost of living.

The Average School Superintendent.

When the superintendents met in convention at Cleveland a newspaper man described what he believed to be the "average American school superintendent" as follows:

"He is a studious man, slightly stooped, with piercing, spectacled eyes, well creased trousers and highly polished shoes, and in age somewhere between 37 and 49. He is married, and has two or three children, and owns a small automobile. He belongs to two lodges. He reads two daily papers, two professional journals and two non-professional magazines, and spends for books and magazines \$200 to \$400 a year. He has 34 to 46 teachers working under him. He is a leader in the life of his community. And his salary is somewhere between \$2,876 and \$4,050 a year."

"And how does he give the service he does, for that amount of money, and keep it up year after year?" asks the Kokomo, Ind., Dispatch. "You'll have to ask the superintendent himself about that. The one sure thing is that the average municipal employer of that average educator gets the worth of its money."

More Men Teachers Wanted.

"Less than fifteen out of every one-hundred teachers in Massachusetts today are men and the feminization of the schools is a reality," Frank W. Wright, state director of elementary, secondary and normal schools said recently.

"More men are needed who will make it a real profession. Girls take it up mostly merely as an occupation until they can get married. They have more time to themselves and a long summer vacation. It should pay enough, however, so that women and girls will be willing to take it up as a profession."

"We should have more men teachers, we should make teaching a profession and we should require two years of service from our normal school graduates."

The Mohawk Machine Answers the Blackboard Question (U. S. Patent Serial Number 590867)

REPRESENTATIVES

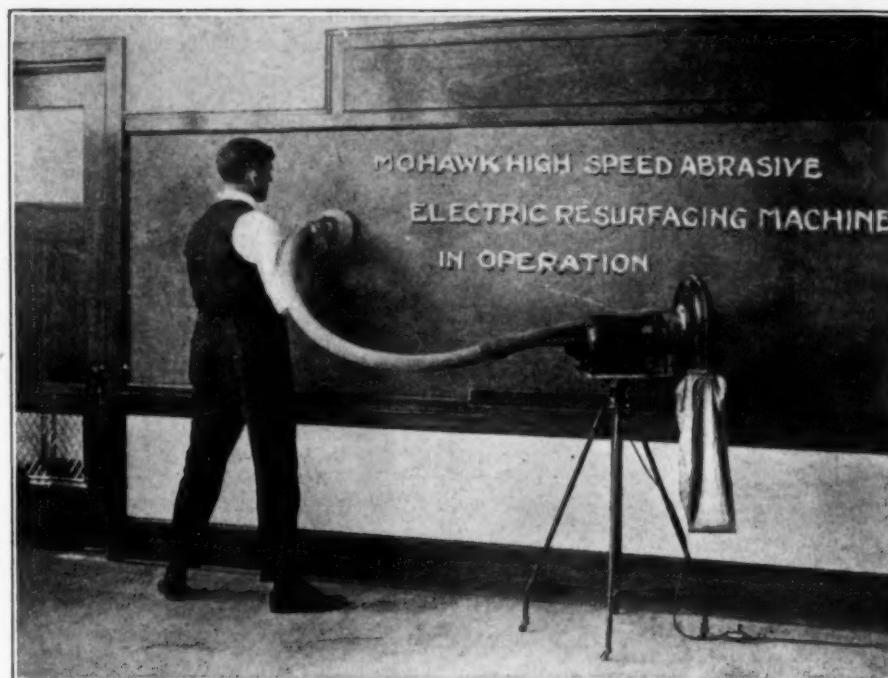
J. L. HAMMETT CO.
Cambridge, Newark,
Mass. N. J.

NORTHWESTERN
SCHOOL SUPPLY CO.
Minneapolis, Minn.

HUB SCHOOL SUPPLY
CO.
Aberdeen, S. C.

METROPOLITAN
SCHOOL SUPPLY CO.
Cedar Rapids, Iowa

C. A. BRYANT
Dallas, Tex.



REPRESENTATIVES

DOBSON-EVANS CO.
Columbus, Ohio

STANDARD
SCHOOL SUPPLY CO.
St. Louis, Mo.

SUPERIOR
SCHOOL SUPPLY CO.
Kansas City, Mo.

EAU CLAIRE BOOK &
STATIONERY CO.
Eau Claire, Wis.

C. F. WEBER & CO.
San Francisco and Los
Angeles, Calif.

ARE YOUR BOARDS GRAY AND GREASY? DOES THE SURFACE APPEAR TO PEEL OFF?

It is not the boards—it is the foreign substance on their surface. A slate blackboard is always naturally black. The Mohawk Machine grinds this matter off—liquids will not remove it. The boards are not removed from the wall—no dirt, no dust, no inconvenience. We guarantee to resurface all slate boards equal to new or new boards will be furnished.

MOHAWK SLATE MACHINE AND MANUFACTURING COMPANY 2121 VINE STREET, PHILADELPHIA, PA.

AMONG THE SUPERINTENDENTS.

—David M. Ward was reelected superintendent of the Wilmington, Delaware schools.

—Prof. H. B. Moore, principal of the girls' high school, Louisville, Ky., was killed in an automobile accident March 27th. He was born in Willsboro, Essex County, N. Y., October 23, 1871 and came to Louisville after having taught in the Indianapolis high schools. He became principal in Louisville in 1916. He has been succeeded by H. B. Tinsley.

—R. W. Fairchild has been reelected superintendent of the Fond du Lac, Wis., schools. A local editor says: "The city is fortunate to have a man of his ability and ideals at the head of its schools."

—R. J. McMahon who has been at the head of the Shawano, Wis., schools for the past three years has accepted the superintendency of the New London, Wis., schools.

—New York, N. Y. Approximately 2,000 substitute teachers have asked the board for increases in salary. Among the reasons given for the increase are that substitute teachers are always ready to answer the call of the board when needed. Their work is not continuous and they may be dropped at a moment's notice. Their compensation is not sufficient to meet the common necessities of life. They are given a vacation without pay and lose all holiday money. They have given five, ten, fifteen or twenty years of service and still receive a compensation not in keeping with the living wage of the day.

—Changes in the type of examinations prescribed for applicants for licenses to teach in the New York City schools have been predicted by the chairman of the board of examiners. The first change will be along the lines of the new examination paper in English in the recent examination for license for promotion. The plan follows the practice of standardized tests and lists a number of statements for the candidate to indicate as false or true. It also groups a number of words bearing upon incidents or events in literature, the candidate being required to underscore the correct one. As English is the most difficult subject on which to work, it is expected that the preparation of the other subjects will be simpler.

—Coatesville, Pa. The school board has adopted a ten percent increase in tuition fees for non-resident students. About four hundred students will be affected by the change.

—Supt. J. M. Gwinn of New Orleans, La., has declared that no propaganda is found in the history textbooks used in the schools. A special committee of teachers inspects textbooks before they are placed in use and a constant check is kept on un-American expressions.

—Columbus, O. The schools this year face a possible deficit of \$200,000, according to estimates of school officials.

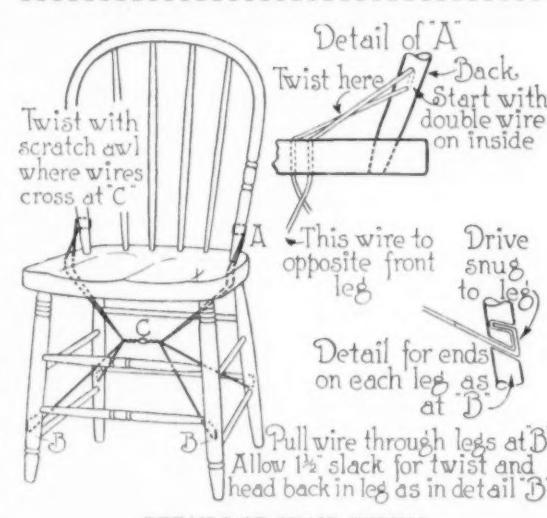
—Steubenville, O. A report on the results of intelligence tests conducted in five of the schools has recently been made by E. H. Duffy, supervising principal of the LaBelle View School. The report covers tests made during 1922 and 1923 and includes 2,000 children or approximately one-half of the school population. The survey disclosed that there are 847 children in the five buildings who are mentally retarded from one-half to five years, while an almost identical number are accelerated as much as five and one-half years. The purpose of the tests is to discover the retarded children and to give each class such work as they are capable of performing. Each child is encouraged to progress under conditions that are normal and courses are adapted to that end.

—Chicago, Ill. During the first year of its service, the new school board will aim to save the tax-payers \$160,000 on the coal bill for the public schools. The total cost will not exceed \$800,000, whereas last year's supply cost \$960,000. Fifty per cent more bids were submitted this year than were submitted last year.

—Canton, Ill. In June the citizens voted at an election for an increased tax rate for the maintenance of the schools. The school board finds it is running behind each year and is compelled to borrow many thousands of dollars to operate the schools. The estimated amount of the new rate will be about fifty cents on each \$100 of assessed valuation.

—New York, N. Y. A further increase in part-time classes in congested sections next fall is predicted by Director H. W. Nudd of the Public Education Association. There are now nearly 357,000 children on part-time and makeshift double session programs, approximately 22,000 more than a year ago. It was planned to have 40,000 sittings ready by the opening of schools in September but the building strike has delayed all building activities. Instead of the 40,000 sittings not more than 17,000 will be available and these will be absorbed by the 25,000 or more new pupils, leaving at least 8,000 children in excess, to share sittings with an equal number of other children, and increasing the part-time and double sessions by at least 16,000.

—The Augusta, Me., school system is confronted with a \$39,000 deficit which must be met by an additional tax levy.



DETAILS OF CHAIR WIRING.

The type of wiring illustrated was developed in the South Cache, Utah, high school and from experience on about 500 chairs which have been in use three or four years, has been found better than the usual type. The directions for the wiring may be summarized in brief as follows:

Drill holes with small drill slightly larger than wire. Double holes should be one-half inch apart. With string measure for the length of wire needed. Fold the wire sharply at the center and insert the ends in the bow (from inside towards outside). Cross the wires and insert in the legs on the opposite side. Pull the wires tight. Allow three inches, 1½" for slack to twist and 1½" to clinch in leg.

Drive the end-head formed snug to the leg. Twist with an awl between the pair of wires to the rear legs and the pair to the front legs. (All together.) Twist above the seat at A.—E. Perry Van Leuven.



Ventilation

in some form or other is a big factor in schools—and MIDWEST AIR FILTERS are unquestionably the solution to all dirt and dust problems that confront school officials.



AIR FILTERS

installed in a modern school means low maintenance—requires no skilled help for operation—and are the means by which clean, pure air is delivered.

The units can be installed in any available space—are easy to clean, and have been proved to be a decidedly beneficial factor in the hygienic conditions of a school building.

Send for your copy Bulletin F-11

Midwest Steel and Supply Co.

Main Office: 100 E. 45th St., New York

Offices in Principal Cities



Hamilton Street School, Harrison, N. J.
Jos. W. Baker, Architect.

Conservation of fuel is the most important work of the American people. The problem of fuel saving is solved by the Board of Education of Harrison, N. J., by the use of the Peerless Unit System of Heating and Ventilating in the Hamilton Street School, Harrison, N. J.

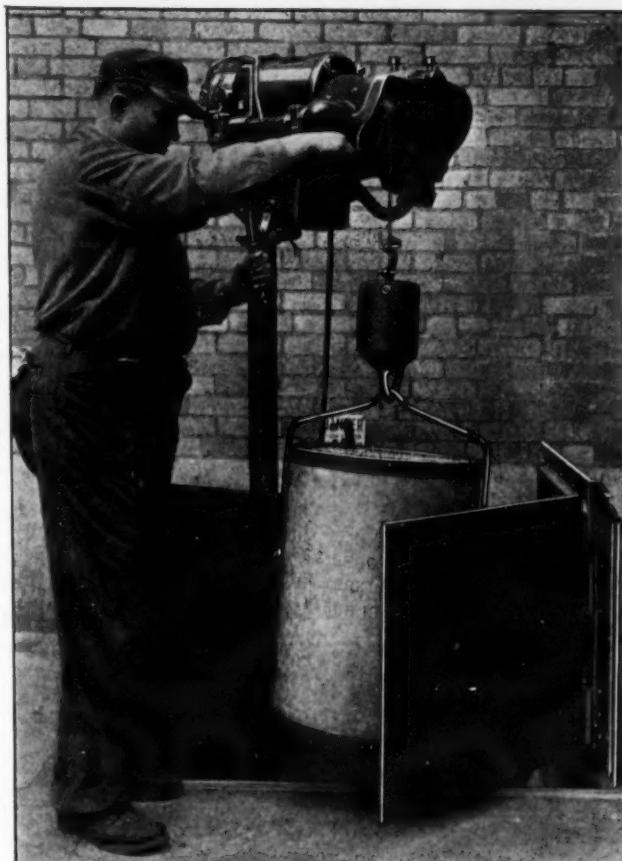
Pure air and proper temperature conditions are prime essentials to student health and efficiency. The Peerless Unit System of Ventilating and Heating stands clearly alone as the means of meeting these requirements. The volume, temperature and condition of the pure, fresh air, cleansed of dust and healthfully humidified, positively supplied to each room, is made exactly right for that room independent of every other room and distributed thoroughly throughout the room without drafts.

Our Engineering force is at your service.

Peerless Unit Ventilation Co., Inc.

437-439 West 16th Street,

New York, N. Y.



In Ohio 84 Public Schools

are equipped for ash removal
with G&G Telescopic Hoists

THE completely equipped Model E electric power Hoist illustrated is very popular in larger schools where ash accumulation is considerable. With it, one man can easily perform the entire work of bringing ashes to grade level. Tests for current consumption have shown that this model will raise as much as 15½ tons of ashes in one kilowatt hour. Distance between cellar and grade level of course affects the amount of current consumed.

In large schools, where sidewalk opening permits truck to drive alongside, the Model D Electric Hoist is preferable, as its overhead crane makes it possible to deposit ashes directly in truck without rehandling at grade.

Hand power models are available for smaller schools.

If you are interested in the complete story, write us. Your architect has our catalog on file.

GILLIS & GEOGHEGAN
551 West Broadway New York

The
G&G
ELECTRIC
REG. U. S. PAT. OFF
Telescopic Hoist
With Automatic Stop and Gravity Lowering Device



TAKE YOUR BUILDING OUT OF THE FIRE TRAP CLASS

Provide with
NOW

before another year of worry, lest you be called to account for a sacrifice of precious lives because you did not provide safe fire escapes.

The STANDARD SPIRAL SLIDE FIRE ESCAPE is the safest escape, because:

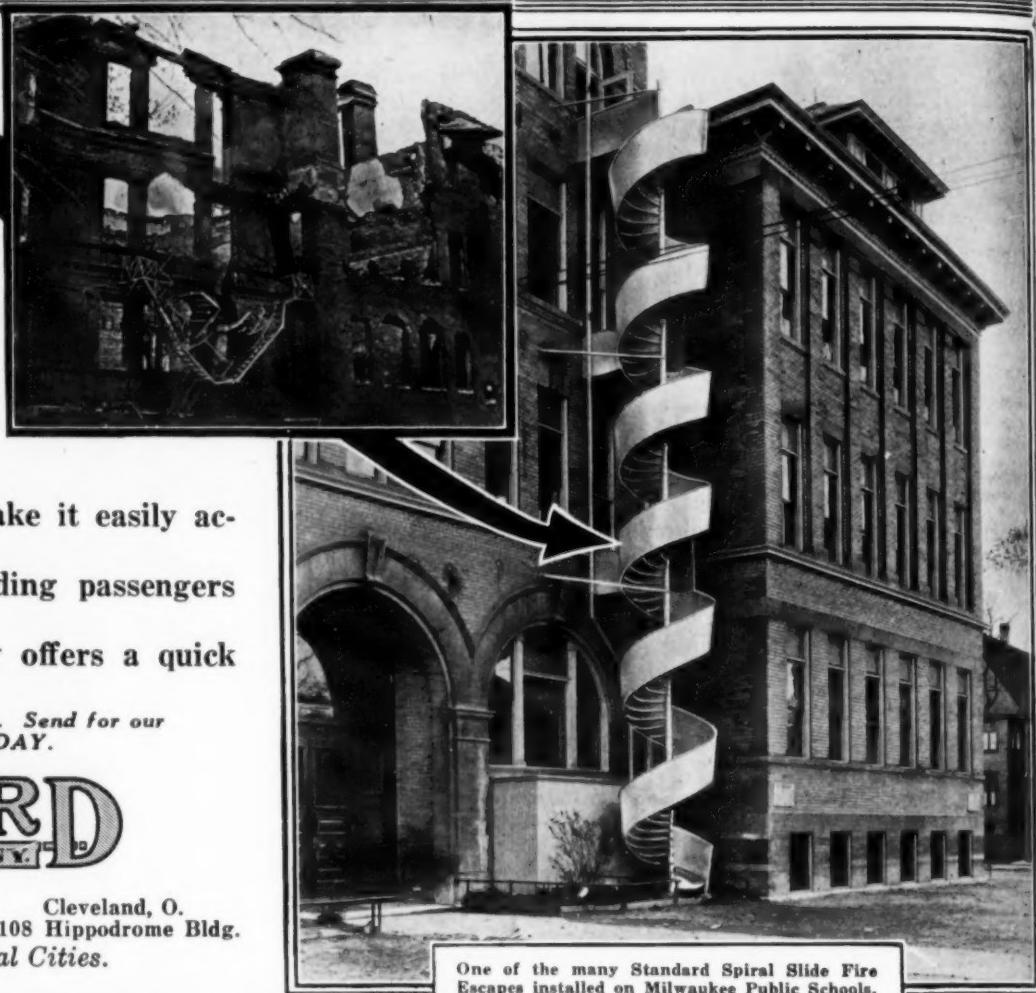
1. Its entrances at floor levels make it easily accessible.
2. Its high guard shields descending passengers from flame and smoke.
3. Its smooth, galvanized runway offers a quick path to safety.

Know more about these safe fire escapes. Send for our spiral fire escape catalog—TODAY.

STANDARD
CONVEYOR COMPANY

NORTH ST. PAUL, MINN.

New York, N. Y. Chicago, Ill. Cleveland, O.
227 Fulton St. 549 W. Washington St. 1108 Hippodrome Bldg.
Representatives in All Principal Cities.



One of the many Standard Spiral Slide Fire Escapes installed on Milwaukee Public Schools, Milwaukee, Wis.



High School, Wapella, Illinois
A. L. PILLSBURY, Architect, Bloomington, Illinois

Let Leader Waterfy your school

A Leader Water System is one of those conveniences that performs its service so quietly, so dependably that one forgets the unseen heavy duty oil cased pump and sturdy tank that keeps the water under pressure at the faucets.

Because of this freedom from mechanical liability, Leader affords the finest kind of water service and fire protection for country schools, country homes, great estates, country clubs and isolated factories.

For 20 years Leader has been Leader in fame as well as in name.

Leader units are complete both tank and pumps, built and guaranteed by one manufacturer. Leader engineers will be glad to solve your water problem no matter how complicated—Standard Leader Tanks from 42 gallons to 20,000 gallons, pumps with capacity of from 112 gallons to 3,000 gallons an hour or more. Special fabrication if your demand is greater.

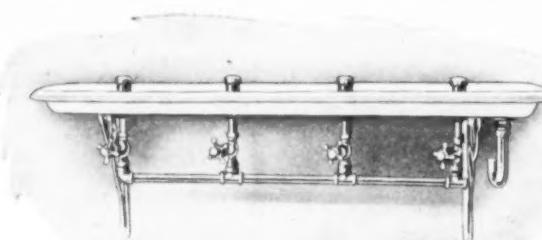
Note to Architects and Engineers: We will gladly send you a copy of "Pumping Engineer" at request on your stationery.

Leader Tank and Equipment for Water, Air and Oil

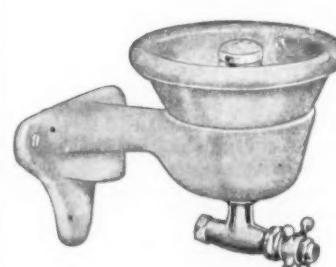
LEADER-TRAHERN CO., Not Inc.		Decatur, Illinois
WATER SUPPLY DIVISION		New York: 21 E. 40th St. Chicago: 327 S. La Salle St.
OF LEADER IRON WORKS		
Name	Gentlemen: Kindly send me catalog and full information on Leader Water Systems for schools and isolated properties.	
Address	A.S.B.J.	

CENTURY SANITARY DRINKING FOUNTAINS

Safeguard the health of the pupil and teacher by considering first and most carefully the proper kinds of sanitary drinking fountains. Now is the time to go over your equipment. Not how cheap the drinking fountains you might use, but how efficient, practical and sanitary. Install CENTURY Bubbler and Fountains, assuring yourselves of the advantages offered in superior sanitary drinking fountains, produced by the pioneers in sanitation.



Patented
A-23 Enamel Wall Bracket Fountain, with Individual Bubbler and Self-Closing Stop Cocks.



A-26
Patented
Wall Bracket Design with Vitreous Porcelain Bowl.
Write for our complete and illustrated catalog. We have a fountain to cover and fill every need.

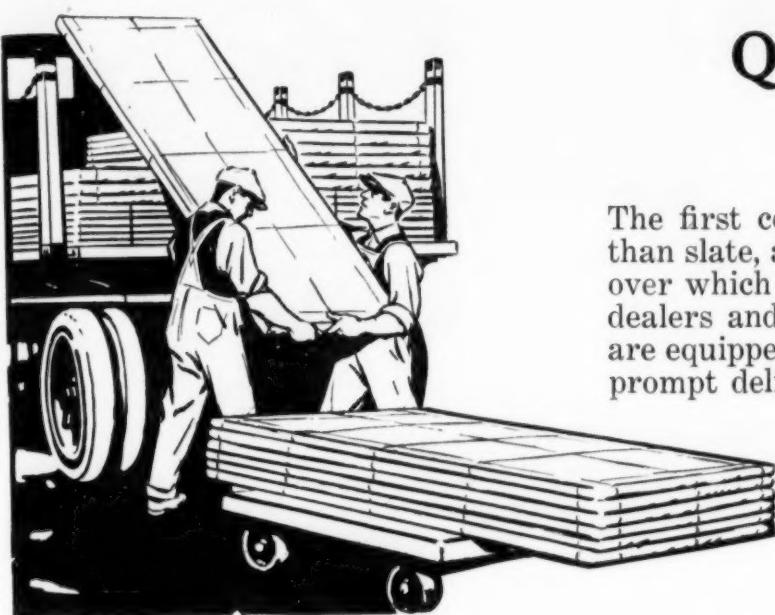


Pat.
A-50 Lavatory or Sink Bubbler.

CENTURY BRASS WORKS, INC.

Department "B"

BELLEVILLE, ILL.



Handy Slabs
Permit easy handling.

QUICK DELIVERIES

Lowered Costs

The first cost of Beaver Blackboard is considerably less than slate, and little more than that of composition boards, over which it has distinct advantages. Hundreds of good dealers and school supply houses throughout the country are equipped to furnish the genuine, and prepared to make prompt deliveries. Cost of installation is unusually light

and years of dependable service make Beaver Blackboard the most economical blackboard you can buy.

Now is the time to get facts on materials for improving your schools. Write us today for samples, literature and name of your nearest dealer.

THE BEAVER PRODUCTS COMPANY, INC.
Buffalo, N. Y.



BEAVER BLACKBOARD

TWO COLORS - BLACK AND GREEN

STANDARDIZATION AND ECONOMY.

Millions of dollars could be saved by municipal and state governments and by the industries of the United States through the unification and standardization of purchase specifications, P. G. Agnew, secretary of the American Engineering Standards Committee declared on May 16 in an address before the National Association of Purchasing Agents.

"The purchasing agents of state and municipal government departments are spending approximately \$700,000,000 yearly for supplies, materials of construction and other products," Mr. Agnew said, "but these purchases are for the most part uncoordinated. In many cities and states perhaps half a dozen different departments may be buying the same materials at the same time but at different prices and under different specifications, or with no specifications at all. Such a condition of course, is conducive to great waste. Industry's purchases are even greater than those of State and municipal governments combined. It has been estimated that the industries represented in the National Association of Purchasing Agents alone spend more than one billion dollars a year for materials and supplies. Although the waste resulting from uncoordinated purchases is undoubtedly much smaller in industry than among local and state departments, it is certain that in industry, also, hundreds of millions of dollars could be saved by national standardization of purchase specifications, of methods for analysis of materials, and of sizes, types and styles.

Meaning of Standardization.

"Industrial standardization means to single out specific products and materials, to settle upon their properties and dimensions, and to concentrate upon them in production and in use—all to the end of bringing about the greatest overall industrial efficiency possible. This involves: Uniformity in dimensions necessary to secure interchangeability of supplies, and the interworking of apparatus and of parts and concentration upon the best number of types, sizes and grades of manufactured products.

"The number of individuals and organizations interested in any particular piece of standardization work increases greatly as it develops from one of these stages to the next. On this

account, and for many other reasons, the difficulties increase in a greater ratio from stage to stage than do the number of parties at interest.

Standardization Work of Firms and Associations.

"Standardization by individual firms is well developed in all the principal industrial countries. It is an essential element in mass production. Unquestionably, up to the present it has been pushed farthest in the United States. Standardization by societies and associations has also been greatly developed in industrial countries. In many cases standards so developed have come into such general use as to make them essentially national in character. In far more numerous cases such standards are receiving increasing recognition, but systematic co-operation and understandings with other interested bodies will be necessary to make possible full national recognition. As examples of important work carried out by societies and associations, these may be mentioned: the great group of purchase specifications and methods of testing for a large number of materials which have been formulated by the American Society for Testing Materials, and which have had a far-reaching influence in the supplies of materials to a large group of manufacturing and consuming industries; the dimensional standards for parts and supplies for automobiles developed by the Society of Automotive Engineers, which have been an essential factor in the enormous development of the automobile industry; the large amount of the dimensional standardization and specification work carried out by the railroads, extending over nearly half a century; and the standardization rules of the American Institute of Electrical Engineers, which have played a fundamental role in the development of electric machinery and apparatus.

Sixteen Nations Adopt.

"The movement for industrial standardization along national lines, although a recent one, is now getting well under way. There are now sixteen national standardizing bodies in all.

"The first step was taken by the American Institute of Electrical Engineers in 1917 by approaching the American Society of Civil Engineers, the American Institute of Mining Engi-

niers, the American Society of Mechanical Engineers, and the American Society for Testing Materials, as a result of which a joint committee was organized to study the problem. It took a full year to bring about a thorough reorganization with the modifications necessary to make the plan acceptable to the numerous bodies concerned, industrial, technical, and governmental.

"The work has grown very rapidly. Forty 'American Standards' and 'Tentative American Standards' have already been approved, and a hundred other projects are under way. In the work more than two hundred national organizations are participating through accredited representatives and more than a thousand men are serving on committees.

"The federal government is one of the largest purchasers of industrial products, both as to the amount and the range of supplies which it requires. In the past, each of the various departments and independent establishments of the government has had its own specifications upon which it purchased its supplies. The diversity of the various government specifications, their departures from usual commercial production, and the special features frequently required became very troublesome to the manufacturing industries. This remained true to a large extent until very recently."

How the Government Does.

"One of the early acts of the first director of the budget was the organization of the Federal Specifications Board, the purpose of which is the unification, so far as is feasible, of all government specifications. The board is composed of representatives designated by the various purchasing agencies of the federal government under the chairmanship of the director of the Bureau of Standards. The board has adopted more than seventy specifications and is actively at work on many more.

"A great deal of essential work has been accomplished in securing international uniformity in the use of fundamental units and methods of measurement which are a prerequisite to nearly all phases of industrial standardization. The various national standardizing bodies are co-operating with each other. While this is yet of an entirely informal nature, very substantial progress has been made. This includes work on

You Demand Much Of Book Covers

WALRAVEN BOOK COVERS WILL "STAND UP"

and Serve You as They Are Serving Thousands of Satisfied Patrons Everywhere.

The Walraven Book Cover is a strong, efficient cover. The double corners and back insure a cover that will stand the brunt of use and abuse to which textbooks are subjected.

The Walraven Cover is designed to be quickly, easily and permanently adjusted to any book. They come in two sizes.



Walraven Covers save
50% on School Books.

Reinforced — The Walraven Book Cover is an attractive, one-piece cover, made of strong Kraft paper, attractive in appearance and easy to adjust.

Adjustable — The double corner and back reinforces the Walraven covers where the wear is greatest. It fits snugly and stays on.

Your Jobber will supply your needs. Write for Sample.

A. T. WALRAVEN BOOK COVER COMPANY

DALLAS

CHICAGO

such items as ball bearings, systems of dimensional gaging, nuts and bolts and similar problems, including some work on specifications.

A Thousand Chances to Save.

"More than one thousand outstanding opportunities for the elimination of economic waste through the simplification of varieties and sizes of products are presented in the first analysis of findings in the survey carried on during recent months by the American Engineering Standards Committee at the request of Secretary Herbert C. Hoover of the Department of Commerce. This is in the form of a summary of answers to a questionnaire sent out by the American Society of Mechanical Engineers, one of the member bodies of the American Engineering Standards Committee, to selected lists of its membership which includes all members of its professional division, and shows 123 suggestions of important standardization opportunities in the automotive and aircraft industries; 115 opportunities in building material industries; 54 opportunities among electrical appliances and supplies; 291 opportunities in tools and other machine shop equipment; 64 opportunities in paper, catalogs, books and printing; 200 opportunities in boilers, valves, pumps, pipe supplies and kindred products; 37 opportunities in the railroad field, and 191 opportunities in miscellaneous industries.

"The A. S. M. E. questionnaire called for suggestions as to three distinct types of simplification opportunities: Finished products in which the number of lines could be reduced; finished products in which the varieties of each line could be reduced in number; and raw materials of construction or of manufacture which may be reduced in the number of varieties or kinds.

"The answers to this questionnaire represent nation-wide distribution of opinion, both geographically and from the point of view of variety of industry."

AN INSTRUCTIVE STATE SCHOOL REPORT.

The annual report of the department of public instruction of New Jersey just issued is exceptionally illuminating along the financial side of the school status of the state. Some rather

remarkable tables have been prepared showing the financial ability of cities and counties, and the per capita school costs.

One table enumerates the assessed valuation of the cities, aggregating the sum of \$2,206,955,042. This table, too, shows that the per capita wealth of the cities ranges from \$418.37 to \$3,888.41.

The counties are also enumerated as to population, taxable wealth, current school costs, etc., etc. Here it develops that the cost of school maintenance per \$1000 valuation ranges from \$6.98 to \$16.13.

Another table enumerates the wealth of the cities on the per capita of the school child basis. This shows that the wealth ranges from \$1,893.89 to \$15,855.82 per child.

In brief the report has been worked out to the last detail so that every unit, large and small, may know exactly what its total and per capita wealth is, and just how much is expended for the schools on the per pupil basis. The subject of taxation is dealt with in a most thorough manner as is the subject of state support.

The report is issued by John Enright, State School Commissioner and Herbert N. Morse, Business Manager.

A TEST OF TEACHERS' AGENCIES.

The Schoolmasters Club of Michigan has investigated the subject of teachers' agencies. It secured the opinions of a number of leading school superintendents and also invited expressions from teachers' agencies. The opinions and expressions thus gained are presented in the form of a report without appending summary and conclusions. The reader is left to draw his own conclusions.

These are to the effect, however that the teachers' agencies are performing a real service to the teaching profession and to the cause of education. Some abuses practiced in the past are recalled, as well as lapses on the part of teachers who failed to comply with the conditions entered into. There are disgruntled teachers who never receive the position they believe themselves entitled to. Here and there some one suggests that the teachers agency business might become the concern of the educational

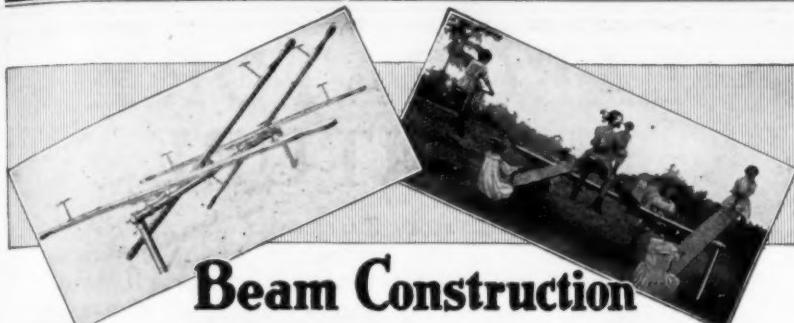
association or the government and thus be taken out of private hands. On the other hand, many superintendents report that they found the private teachers agencies "to be fair and square" and that individual enterprise frequently renders better service than public control.

The teachers' agencies in responding to the inquiries made frankly state their methods of dealing with school authorities and teachers. The position taken is well stated by one of the agency managers who says: "I am glad to learn that your committee is concerning itself with this matter. Personally I feel that every agency should have a definite code of ethics that it publishes so that the educational world will know for what they stand. We are endeavoring to do the highest kind of professional work, and we welcome criticism as to our policies. We take the attitude that to be successful commercially we must first succeed professionally and that fitting the teacher to his work and filling the position with the teacher who fits is a real professional service."

Tenth Anniversary.

The tenth anniversary of the Newark Normal School, at Newark, N. J., was observed on April 7th, at a gathering of the faculty and six hundred graduates. The school was organized and established as a state normal school in 1913 with a faculty of eighteen and an enrollment of less than four hundred students. The maximum enrollment of 1,200 students which was reached this year makes it one of the large normal schools of the country. During the ten-year period nearly three thousand graduates have taken their places on the teaching forces of this and other states and the reports of their work have reflected credit upon the institution from which they were graduated.

A feature of the celebration was the presentation to the school by the faculty and alumni of a portrait of Hon. M. A. Rice, president of the state board of education, through whose efforts the school was established, and since that time a supporter of the institution. Dr. W. S. Willis, principal, gave a brief history of the school and a poem, written by Dr. Willis, was read by a member of the faculty.



Beam Construction Makes MEDART See-Saws Stronger

The beam construction of MEDART See-Saws is but another of the many features of superiority to be found in all MEDART Playground Apparatus. A beam for a see-saw is an innovation—it has much greater strength than the old style flat board—and besides, it limits the use of one see-saw to two children unless extra seats are provided, which can be readily done. This precaution against over-crowding avoids danger of accidents.

Another important point—the fulcrum permits of adjusting the see-saw to different weights. It is heavily built to take all the strain put upon it. Children are delighted with the saddle type of seat. It is made of galvanized steel. The handles afford a comfortable grip and prevent smashed fingers.

MEDART PLAYGROUND EQUIPMENT

The careful thought devoted to every detail of MEDART Playground Apparatus and its many features of recognized superiority—all make for SAFETY, SERVICE and DURABILITY. For this reason, MEDART Equipment has been, for 50 years, the first choice of careful buyers everywhere. MEDART prices are much lower than you would expect for apparatus of such outstanding merit.

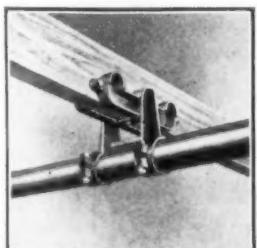


Illustration shows the Medart Beam Construction and improved fulcrum.

Send for Catalog "M-5"

It illustrates the full line of MEDART Playground Equipment. Also contains information on playground planning, based on our long experience in this work. This catalog free on request.

FRED MEDART MFG. CO.
Potomac and DeKalb Streets, St. Louis, Mo.

Also Manufacturers of Steel Lockers
Catalog on Request

Wurld'sbest Window Ventilator



Good Work and Perfect Ventilation

Good work in the school room requires perfect circulation of air. Many schools are providing this kind of circulation (supplementing other means of ventilation) with the new Wurld'sbest Window Ventilator. The hoods over the openings and the wire screen on the inside effectively exclude rain, dust, soot and insects, while at the same time they admit a constant even flow of fresh, pure air, regardless of weather conditions. The result is perfect ventilation—without draft or dust, without rain or snow, without flies or bugs.

Wurld'sbest Window Ventilators are made of heavy sheet metal with a beautiful and durable finish of baked enamel. They are practically indestructible, cannot get out of order and will not rattle in the wind. They are quickly and easily installed, are comparatively inexpensive, and will give years of satisfactory service. They are manufactured in sizes to fit any window dimensions.

We Will Send Trial Ventilator

To give school boards an opportunity to test the Wurld'sbest Window Ventilator in actual service, we will send one of these ventilators for a ten days' trial on memorandum charge. Simply advise us the width of the window sash (full width between sash channels) in the window in which you wish to test the ventilator. If it does not prove its value, it may be returned at the end of the ten days and the memorandum charge will be cancelled. Full information as to prices on various sizes sent with trial shipment or furnished on request.

(Line drawing of outside of window equipped with Wurld'sbest Window Ventilator—school teacher on inside of window.)



Special discounts to school boards on quantity orders.

W. N. Johnson Automobile Sheet Metal Works
640 South J Street

Richmond, Indiana, U. S. A.

Champion Sales Company
Market Bldg., Euclid and
East 46th
Cleveland, Ohio

Champion Sales Company
609 Chamber of Commerce
Pittsburgh, Pa.

Wurld'sbest Rainshield
Ventilator Company
170 Fifth Avenue
New York

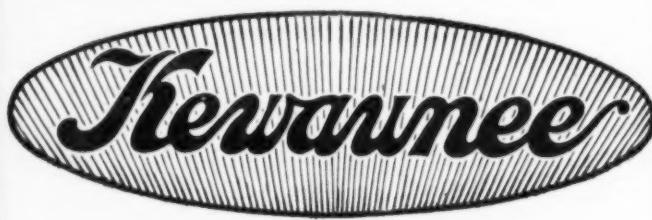


Instructor's Desk *for Smaller Schools*

This desk is designed for the smaller schools, where lack of space or appropriation will not permit larger and more expensive desks. It is appropriate for

Physics or Chemistry Laboratory or the Lecture Room

The five nickel-plated vertical rods are screwed into brass plates, set flush in the table top. These rods are removable, and with the flush wood cover for the sink, a large clear working surface is secured. The smaller rods are 10 mm. diameter, used for building up ring stand supports, funnel and burette holders, etc. The larger rods, 19 mm. diameter, support an adjustable wood crossbar, convenient for building up apparatus for various experiments.



Laboratory Furniture

It is selected where the highest educational standards in equipment are observed. If interested in equipment for the teaching of Physics, Chemistry, Biology, Agriculture, Electricity, Domestic Science or Art, Manual Training or Kindergarten Work—ask for the Kewaunee Book. It is free.

Address all inquiries to the factory at Kewaunee.

Kewaunee Mfg. Co.
LABORATORY FURNITURE EXPERTS

C. G. Campbell, Treas. and Gen. Mgr.

101 Lincoln St.,
Kewaunee, Wis.

New York Office
70 Fifth Avenue

CANADIAN SALES DIVISION
265 Adelaide St. W., Toronto, Canada.

BRANCH OFFICES

Chicago Minneapolis Kansas City Houston Little Rock
Denver Omaha Columbus Spokane Oklahoma City
San Francisco Jackson, Miss. Baton Rouge Phoenix
Greensboro, N.C. Albuquerque Salt Lake City

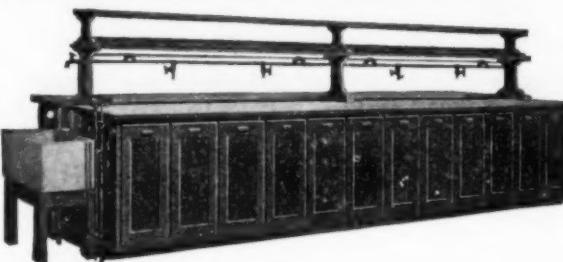
LABORATORY FURNITURE

WHEN you buy Laboratory Furniture from LEONARD PETERSON & CO., INC., you are purchasing more than so many tables and cases—you are buying Laboratory Furniture backed by thirty years of thorough knowledge of a highly specialized industry—you are benefited by painstaking attention to all details that go to make Laboratory Furniture right in design and quality.

Leonard Peterson & Co., Inc.

Manufacturers of Guaranteed Laboratory Furniture
Office and Factory: 1222-34 Fullerton Ave., Chicago, Ill.
New York Sales Office: Knickerbocker Bldg., 42nd and Broadway

Send for our
Catalog
No. 11-A



Fales Laboratory Desk (Patented)
for General Chemistry, Quantitative Analysis, and Organic Chemistry

Leonard Peterson & Co., Inc.
Sole Manufacturers.

Send for circular describing this desk.

Say **Weis** When You Buy Filing Equipment, Guide Cards, Index Cards and Vertical Filing Folders

Wherever you are the progressive school supply dealers can furnish WEIS Standard Made, Standard Priced, Superior Articles of merit for your office requirements. Prices quoted apply in North Central and Eastern States. A little higher in the South, Southwest and West. See Coupon below.



Two Drawer and Multiple Card Index Cabinets

The ideal equipment for Card Filing Systems requiring space for more than 1400 cards and designed to take care of unlimited requirements. Top Sections are complete two-drawer files. Buy Bottom Sections for placing under Tops as filing needs demand. Eight drawer stack with base (at left) for about 12,000 3 x 5 cards, finished Natural Quartered Oak or Imitation Mahogany. \$24.80; 4 x 6 card size, \$28.40; 5 x 8 card size, \$32.80; 6 x 9 card size, \$37.25.

Single Drawer Card Cabinets

For Card Filing Systems that will not require space for more than 1400 Cards and Guides. Made from the very best grade Quartered Oak finished natural, or Birch in Mahogany finish. All

Oak

3x5, \$3.40
5x8, \$5.00
4x6, \$4.20
6x9, \$5.80



drawers equipped with easily adjusted steel follow blocks to keep contents in vertical position. Drawers can be quickly removed from cabinet by slight upward tilt. Investigate the WEIS Card Cabinet line before you buy.

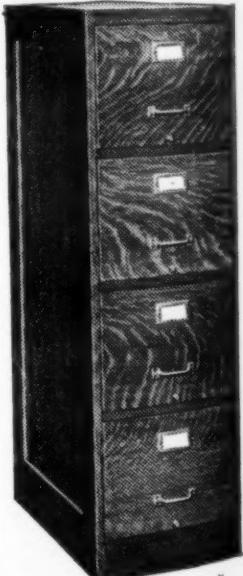


Fibre Board Card Trays
Made of heavy binders board edges reinforced with strong material. Outside covered with imported black and white

glazed acetate paper. Capacity about 1200 Cards. No. 35, 3 x 5

size, 60c; No. 46, 4 x 6 size, 80c; No. 58, 5 x 8 size, \$1.00; No. 69,

6 x 9 size, \$1.20; No. 49, Check size, \$1.20.



No. 1924 Four Drawer Oak LETTER FILE

24 FREIGHT PAID
In Eastern and
Central States
\$30 in South,
Southwest and
West

The new **Weis** 1900 Line Letter and Cap Files, three and four drawers high, finished Light Natural Oak or Imitation Mahogany or Walnut are priced \$4.00 to \$6.00 less than you would expect to pay when compared with other lines. Investigate this line before you buy.

THE WEIS MANUFACTURING COMPANY, 186 Union St., Monroe, Mich. (New York 52 Park Place
FILING SUGGESTIONS

Send Your New Revised Booklet

And Big Catalog Free to

Be Sure
to Write
Complete
Address



The Wiese Mark of quality insures Enduring Satisfaction

LABORATORY FURNITURE

28 YEARS of knowing-how enter into the design and workmanship of our standard and built-to-order educational and technical furniture for physics, chemistry, agriculture, biology, household economics and manual training. To keep your files up to date

ASK FOR OUR NEW
CATALOGUE No. 30



FOR an opinion of the character of our furniture and of our planning service we should be glad to refer interested school men to a number of the country's finest schools.

Special design orders promptly filled. We can make

IMMEDIATE SHIPMENT OF
ALL STANDARD DESIGNS

WIESE LABORATORY FURNITURE CO.

ENGINEERS and BUILDERS

12 Sales Offices throughout the Country: Address Factory, Manitowoc, Wis.

THE AMERICAN SCHOOL TEXTBOOK. (Concluded from Page 56)

duplication, and waste effort. The ultimate compensation must be derived from that competition in which the gains outweigh the losses.

It need not be urged that what applies to modern trade and industrial pursuit applies with equal force to the textbook publishing business. The energy that it put forth in producing textbooks, and more textbooks is necessarily attended with some waste energy. Un-economie duplication and overlapping in production is bound to become evident.

A writer, Francis D. Curtis, recently said in the School Review that: "It cannot be denied that to a great extent our system of textbooks is wasteful and in many respects may even be deserving of scorn and condemnation. Every decade sees the publishing of scores of texts, carefully written and edited, expensively illustrated, attractive and worthy in every respect, which, failing to achieve recognition in the form of adoptions, are financially unsuccessful and hence soon slip into the discard, unappreciated and practically unknown. The fact that each adoption can place only one text inevitably compels the publishers to bring into the fight their best resources in advertising, salesmanship, and influence. Too often as a result, an inferior book wins out over superior ones, and since it alone dominates the particular field in that locality for a term of years, the results from the standpoint of education are deplorable."

We would not go to the extreme position which the writers of the paragraph takes. In fact, we hold that no country on earth produces, on the whole, more practical and serviceable school books than are produced in the United States. If this be true, and we confidently believe that it is, then the question follows

whether the methods employed in reaching the desired excellence are wasteful or not.

The fact that an inferior book has won its way into an adoption is, after all, merely incidental. The real issue here is whether the list of books, as a whole, is a good one. To hold that an inferior book has crept in may, after all, only mean that a better book might have been adopted.

The modern textbook, as used in the schools of this country, is not the product of a pedagogical highbrow, as this is the case in European countries, but usually the work of schoolroom workers, based upon actual teaching experience, and tested as to its adaptability and service before it is published and marketed.

But, let us assume that scores of textbooks carefully written and edited, handsomely illustrated and printed, and skillfully marketed, go into the discard again. That is the publisher's loss. His enterprise simply missed the mark. Education has lost nothing.

Perhaps, we produce too many schoolbooks, make them too attractive, and change them too often, or sometimes not often enough. But, these are the results of American enterprise, energy and industry in the publishing business. The manufacturer annually scraps machinery and tools to make room for the more serviceable article. In the process of achieving excellence wasted energy is unavoidable.

The larger benefits growing out of the competition between publisher and publisher must be found in the quality of the bulk or average of textbooks now supplied to the schools of this country rather than in a single book or in the books of a single district. If there is a rivalry in securing competent authorship, excellence in book production and in marketing methods, it can only result in more desirable, more suitable and ultimately better books.

The changing conditions in the social, civic and economic life of the nation are necessarily reflected in the pedagogical method and curricula, if progress in education is to be observed. The improvements and refinements which apply to the work—literature going into the channels of commerce and industry, must be applied with equal energy in producing the work—literature that goes into the schools of the country.

SCHOOLMASTER PRINCIPLE AND PRACTICE.

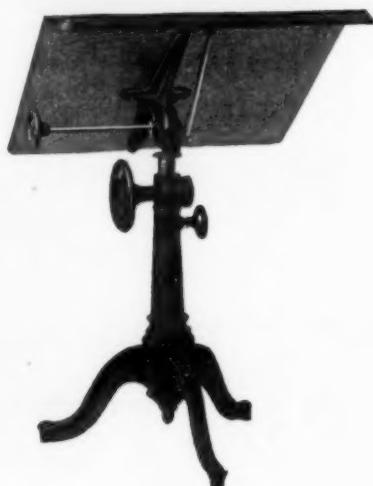
Not unlike the manufacturer who speeds up the production of articles for which there happens to be a large demand, so the schoolmaster stresses studies which seem for the time being to be most needed in promoting the wellbeing of community, state or nation.

Thus, the more observant educators have in recent years urged greater attention to the study of civics and government. They have noted here and there a reckless departure from the fundamentals of American citizenship, and a tendency to undermine those tenets which make for the orderly progress of the nation and for the stability of government.

The effort to instill a better understanding of the duties and responsibilities of citizenship, as applied to a self-governing nation, is both timely and laudable, and speaks well of the character and quality of the American educator.

Some of these have not, however, been clear as to principle and practice as applied to matters governmental. While they have recognized the need at this time for a general awakening to the obligations of citizenship, they have also fostered tendencies which are not designed to uphold the fundamentals of government, as laid down by the founders of the Republic. In fact, they have with a mistaken zeal departed from them. They have espoused stability and perpetuity, and in the same breath have cham-

A FAVORITE ART TABLE



No. 21 with horizontal shelf

VERY HEAVY AND RIGID

Top 23x26 inches, height 30 to 41 inches. Three adjustments, raising, revolving and tilting.

The number of installations of this table is the best proof of its popularity, and we will be glad to refer you to them.

Send for catalog S

ECONOMY DRAWING TABLE & MFG. CO.

Adrian, Mich.

pioned a change in the original plan of government.

It has become a well-known fact, among students and statesmen, that the tendency to load upon the federal government too many of the things that belong to the state government, has not only been a weakening of local self-government in parts of the country, but a breakdown of American institutions." On this point the New York World recently said:

"The fact that some of these extensions of federal authority seem beneficent in themselves is beside the point. Whether good or bad, the American system of government was not designed to enable a highly centralized authority to function. It was established as a government of enumerated and delegated powers, a government of checks and balances, with the idea that all the powers not expressly delegated should remain with the states or with the people themselves."

All the trouble comes from the persistent attempt to make the United States Government do what its founders never intended it should do. Mr. Daugherty himself practically admits as much, but he is afraid to meet the logic of the situation and say that there is no way out except for Congress and the Executive to abandon their schemes of further centralization and try to get government in the United States back to its first principles."

But, happily there also remain far-seeing educators, who have deprecated the tendency towards centralization. They have fearlessly and vigorously denounced the efforts of a schoolmaster coterie to create an educational cabinet office and bring the educational interests of the country under federal domination and control. They have given thought to the kind of government that must be maintained as well as to the general question of loyalty to government.

So brilliant an educator as Dr. Nicholas Murray Butler, who has always demonstrated exceptional vision and wisdom in American government, and who was prominently mentioned and seriously considered as a candidate for President of the United States, recently gave utterance to the following:

"Every American who understands the fundamental principles which underlie American edu-

cation and justify the faith of the American people in it, will resist all attempts to break down those principles, to substitute federal control or center regulation for local initiative, to displace elasticity for rigidity, or to compel conformity in Prussian fashion instead of upholding liberty in American fashion."

(Concluded on Page 139)



© U. & U.

ALASKA'S AGRICULTURAL COLLEGE AND SCHOOL OF MINES OPENED AT FAIRBANKS.

This shows Governor Scott C. Bone of Alaska (standing directly under the flag) addressing the gathering at the opening ceremonies of Alaska's Agricultural College and School of Mines. This is the farthest northern college in the world—located sixty miles farther north than the University of Iceland. Seven students were enrolled on the first day, two girls and five boys, and the whole town of Fairbanks gathered to hear the governor speak at the opening ceremonies.

STEGER SONG BOOK

of 111

Favorite Selections

for Community Singing
Home Happiness
School Exercises

Edited by Dr. J. Lewis Browne

This is just the book you need. A comprehensive collection of old and new favorite songs—patriotic numbers, folk songs, the melodies close to every heart.

For instruction purposes this book is ideal. The songs greatly desired in school work are included in simple keys, correctly arranged.

Complete with words and music

Selected paper and careful printing make this book easily readable. Priced so low that all schools can afford to give one to every pupil.

Send for a copy today

If you are a teacher or school official, write on your school's letterhead for a free sample copy today.

PRICES: 100 copies, 7c each [f. o. b.
Chicago]. \$1.00 per dozen, prepaid.
Single copies [and less than dozen
lots] 10c each, prepaid.

STEGER & SONS
Piano Manufacturing Company
300 Steger Bldg., Chicago, Ill.



If it's a STEGER—it's the most valuable piano in the world

Something New!



A Burner which burns with a BLAST, yet no compressed air is used.

Is recommended where a continuous hot blast is wanted.

Price, \$2.50 each

Pyrex Ware
Jena Ware
Agricultural Outfits
Microscopes, B&L

Chemical Hardware
Botanical Supplies
Analytical Funnels
Blood Testing
Apparatus

Biological Stains
Coor's Porcelain
Ware
Water Stills
Blowpipe Material

Microscopic Accessories, Graduated Glassware

Agate Mortars and Pestles at better prices than ever.

Filtering Paper

Dreverhoff—S&S—Whatman—Munktell—H. H. C. Co.

HENRY HEIL CHEMICAL COMPANY

St. Louis.

Holtzer-Cabot

FIRE ALARM AND SIGNAL SYSTEMS

**1300 Pupils Make Fire Exit in
2m. 45s.**

"New York, May 21.—With the recent school house fire horror at Camden, S. C., fresh in their minds, 1300 pupils of Evander Childs High School, in the Bronx, reached the street in 2 minutes and 45 seconds today when a fire started in a waste paper chute. The fire was confined to the chute. No one was injured. The pupils resumed their classes twenty minutes after their exit."

This was made possible only by having the most modern Fire Alarm and Signal Systems. For fifty years, Holtzer-Cabot have been leaders in the manufacture and development of Electrical Signal Systems and today many of the country's leading architects are specifying Holtzer-Cabot Systems exclusively. The first cost is the last cost with Holtzer-Cabot equipment.

Write for our brochure "Signal Systems for Schools."

Our engineers are at the service of architects, engineers and their clients at all times, just communicate with our nearest office.

The HOLTZER-CABOT ELECTRIC CO.
Electric Signaling Systems

HOME OFFICE AND FACTORY

125 Amory Street,

BOSTON, MASS.

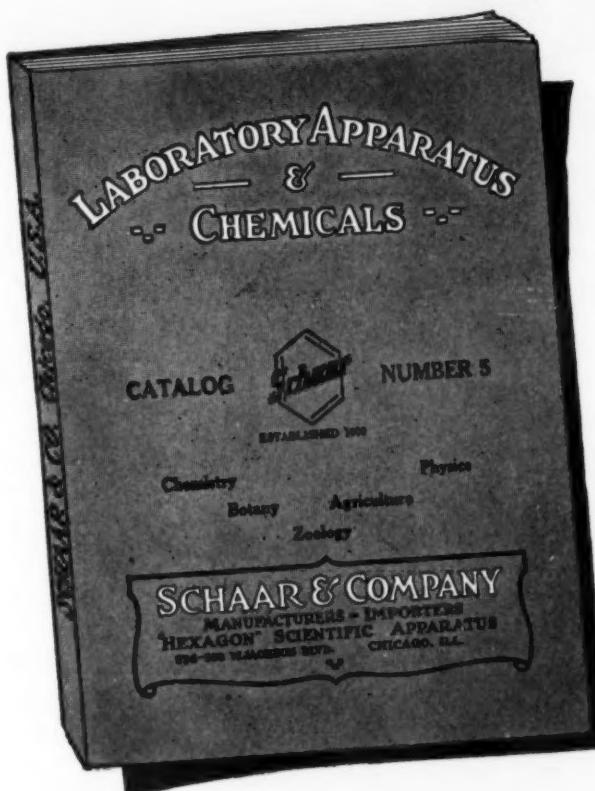
BRANCH OFFICES

Chicago, Ill., 6161-65 S. State St.
New York, N. Y., 101 Park Ave.
Philadelphia, Pa., 807 Otis Bldg.
Detroit, Mich., 1051 Book Bldg.
Baltimore, Md., 1104 Union Trust
Bldg.

San Francisco, Cal., 408 Claus
Spreckels Bldg.
Minneapolis, Minn., 627 Metro-
politan Life Bldg.
Cleveland, Ohio, 517 Union Bldg.

SCHAAR

Schaar's Green Catalog



—be sure it's Schaar's

The Science Apparatus you need for your laboratories is listed in SCHAAAR'S GREEN CATALOG. Our stock of apparatus and chemicals for Physics, Chemistry and Biology is complete. We are filling orders NOW for delivery by September 1st.

Write for our catalog

SCHAAR & COMPANY

556 W. Jackson Blvd.

Chicago,

Illinois

Please
send me
your catalog
of Science Apparatus.

School.....

City and State.....

Name.....

Position.....

SCHAAR & COMPANY,

556 W. Jackson Blvd.
Chicago, Illinois.

How Many Waste Baskets Could Withstand This Test?



YOU know what hard usage a school waste basket customarily receives,—that only an exceptional basket such as the NEMCO can endure it year after year and still retain the neat, trim, appearance that entitles it to a place in the well-ordered classroom. The



Nemco

*Made of
Expanded Metal,
—not wire*

is practically "child-proof." Built after the manner of a skyscraper, of expanded metal, — not wire, and, with solid steel bottom put in to stay, it challenges the world for durability. The inside steel collar, which prevents small waste, pencil shavings, etc., from sifting out, is a feature found in no other basket. While the neat enamel finish is your assurance that it will not rust.

*Selected by the
School Boards of
Many Leading
Cities*

this moderately priced basket will meet your every requirement. Obtainable of all school supply houses, or circular sent on request.

NORTHWESTERN EXPANDED METAL CO.

1214 Old Colony Building
CHICAGO

An EVANS VANISHING DOOR Product
FOR SCHOOLS



**That Pays for Itself With
FLOOR SPACE SAVED**

WARDROBES, Class A

made with Panel Backs, Ends and Divisions, and with doors that swing—not slide—on double pivoted arms, no guides, tracks or rollers, no rattle or squeak; they rate 100% in conservation of space, easy and noiseless operation, perfect sanitation and ventilation. Doors cannot stick or bind. Hardware can also be purchased separately.

**More Than a Million Hang Their Wraps in
Evans Vanishing Door Wardrobes**

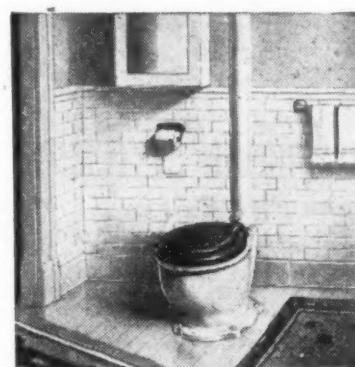
Trade Mark
VANISHING DOOR
U. S. Reg.

Catalog
"PICTURES THAT TALK"
Sent on Request

700 Block 0

W. L. EVANS

Washington, Ind.



**A Hygienic,
Attractive
Closet
for Rural and
Village Schools**

**THE WATERBURY
SANITARY CAUSTIC
CLOSET**

COMPLETE in itself—requires no water or sewer. Waste passes into ground vault where it is thoroughly disintegrated and sterilized by a powerful chemical solution; needs to be emptied only once or twice a year.

Guaranteed sanitary and odorless; affords every convenience of city water toilet and with its vitreous china bowl and standard seat, equals best flush closets in appearance.

Get rid of the old, unsanitary outhouse. Provide this clean, convenient closet before the fall term begins. Write for full information. Ask also about our excellent portable school heater.

WATERMAN-WATERBURY CO.

1121 N.E. Jackson St.

Minneapolis, Minn.



SPENCER MICROSCOPE No. 64

with side-fine adjustment, lever type, is

An Ideal Instrument For High School Use.

Among its many advantageous features are these:

- I. Objective lenses mounted directly into the metal mount, avoiding the use of Canada Balsam to hold them.
- II. Fine adjustment so constructed as to avoid breakage of cover glass when focused down upon it.
- III. A fool-proof fine adjustment, with 34 threads of the screw always engaged instead of but one, as in others.

CATALOG SENT
ON REQUEST.



MICROSCOPE No. 64 B
with 10X eyepiece, 16m/m and
4 m/m objective, double nose-
piece, iris diaphragm. Complete
in cabinet, \$64.00. Discount to
Schools.



SPENCER LENS CO.

MANUFACTURERS
MICROSCOPES, MICROTOMES, DELIN-
EASCOPES, SCIENTIFIC APPARATUS.
BUFFALO, N. Y.



(Concluded from Page 136)

The function of the educator to prepare the youth of the land for the duties of citizenship also implies a rigid adherence to the principles of government upon which this nation was founded. This sacred obligation placed upon the educator renders such adherence doubly essential where departure from the same obviously presages danger and dissolution.

The nation must look to the schoolmaster not only for the training of the youth for citizenship, but also for his loyal cooperation in the maintenance of those principles upon which the Republic is founded and upon which its integrity and perpetuity must be sought.

NORTH END JUNIOR HIGH SCHOOL.

(Concluded from Page 62)

In making adequate provision for light, heat, and sanitation, the board of education has had the constant counsel of Hubert C. Eicher, Director of school buildings in the state department of education. In the distribution of rooms for carrying on different school activities, number and arrangement of rooms the superintendent of schools advised on several occasions with Mr. Glass, state director of junior high schools. The good offices of the state department of education are much appreciated.

Character and Equipment of Building.

The new junior high school provides for a building 267 ft. in width by 262 ft. in depth, three stories in height of fireproof construction throughout. It contains approximately 2,100,000 cu. ft. and the contract cost, including plumbing, heating, ventilating, and vacuum cleaning system was \$798,779.

The exterior is finished with granite base, colonial shades of red brick and Indiana limestone trim. The center tower has been made the principal feature of the exterior, and with

other ornamentations has been carried out in English collegiate gothic design.

Strictly first class school standards have been maintained for all branches of the work. Gilbert N. Edson, of Scranton, Pa., is the architect. Guilbert & Betelle of Newark, N. J., consulting architects.

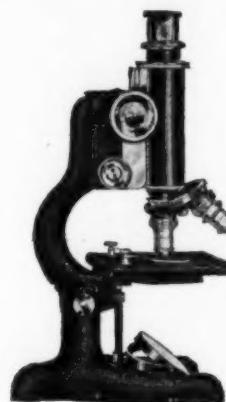
In the basement are housed the boiler room, coal bunker storage, having a capacity of 500 tons, switch board, transformer and janitor rooms as well as the fan rooms required by the heating system.

The first floor has ample provision for large service to the community. The auditorium, the library, the music or small lecture room, a separate gymnasium for boys and girls, all have been placed in such position as to make them most accessible to the public after school hours. The bookkeeping, typewriting, and printing rooms are so grouped and so placed as to be readily accessible to the principal's office. The room to the left of the entrance has been set aside as the medical inspection room and the permanent room of the school nurse. The problem of health is rapidly being recognized as of major importance and for this reason is given such a prominent place in Scranton's first junior high school. Two separate gyms make possible two periods of instruction weekly in physical education for each pupil.

Most of the rooms on the second floor are classrooms intended for instruction in the usual academic subjects. The mechanical drawing room has been placed where it will be most convenient to the shops and to the freehand drawing room on third floor. The shops in number and size, and arrangement will lend themselves admirably for work in auto-mechanics, sheetmetal, general tinkering, bench and machine work in wood. For convenience and



BAUSCH & LOMB MICROSCOPE FS



DESIGNED especially for school service, this microscope combines strong, rugged construction and simplicity of adjustment, with the Bausch & Lomb standard of accuracy.

The entire line of Bausch & Lomb Microscopes represents the progressive development of 70 years of optical research and scientific lens-making.

Complete information on Bausch & Lomb Microscopes and Accessories will be sent at your request; and if you will state your needs, we shall be glad to assist you in selecting suitable equipment.

BAUSCH & LOMB OPTICAL CO.

411 St. Paul Street, Rochester, N. Y.

New York Washington Chicago San Francisco London

*Leading American Makers of Photographic Lenses, Stereo-Prism Binoculars,
Telescopes, Magnifiers, Microscopes, Projection Apparatus (Balopticons),
Automobile Lenses and Other High-Grade Optical Products.*

for the avoidance of purchasing unnecessary apparatus for teaching general science the general science rooms have been grouped. The rooms indicated for student activities, men teachers, and women teachers should add greatly to the esprit de corps of teachers and pupils of the school.

Practical Utilization of Space.

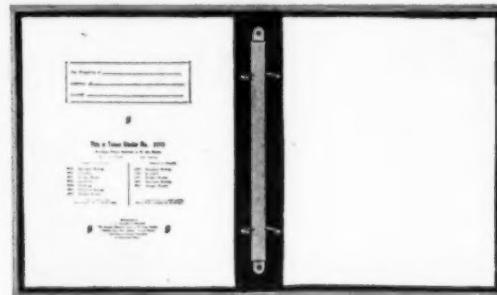
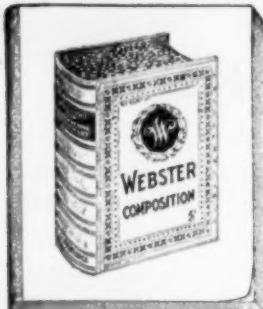
The rooms on the third floor are devoted very largely to the household arts, sewing, cooking, and laundering. The work in freehand drawing is to be closely correlated with mechanical drawing as well as to furnish the designs used in other departments. A considerable part of the time of this department will be given over to the study of pictures and appropriateness in household decorations. The facilities for furnishing school lunches to pupils and faculty are ample. The kitchen is so placed that the odors arising from cooking will not be noticeable in any other part of the building. A freight elevator has been provided in the northwest corner of the building for the delivery of supplies to the kitchen and the domestic science department located on the third floor.

One of the best features of the entire building is the utilization of all available space. There is sufficient number of rooms for storage and supplies to meet the immediate needs of all departments. The rooms set aside for instructors have been designed to add strength to the several departments as well as to serve the comfort and convenience of the faculty members belonging to them.

These plans as worked out may well be taken as guides for future junior high school buildings in Scranton. They will be thoroughly tested as to their detailed suitability as soon as the doors of the building are opened for permanent school use. Wherever it is found that

QUALITY - STANDARDIZATION - UTILITY

BLAIR'S KEYSTONE SCHOOL SERIES



WRITING AND PENCIL TABLETS

NOTE AND COMPOSITION BOOKS

Printed Headings for Test and Examination. Theme Tablets. Shorthand Notebooks. Typewriter Tablets and Single-sheet Papers. Spelling Printed Form Tablets and Books. Primary Practice Tablets. Memorandum Books. Loose-leaf Binders, Fillers and Completes. Penmanship Blanks and Drawing Books, Legal and Foolscap Tablets. Usable varieties, ruling width, paper quality, size and shape. Guaranteed quality by the makers and sold by progressive dealers.

Detailed information at your service.

Yours for good tablets

For Forty-Four Years, Stationers to the
American Schools

J. C. BLAIR COMPANY

Pioneers in Tablet Manufacture

HUNTINGDON

PENNSYLVANIA

certain features could be improved in future plans, proper notation will be made on the blueprints of the plans for the present structure. It is only by such procedure that the future junior high school buildings of Scranton may render the largest educational usefulness.

SERVICE OF THE SCHOOL ARCHITECT.

(Concluded from Page 65)

in the recent, not the remote, past. But I for one do not accept the blame for school architects. Such mistakes rather are the result of a general failure on the part of everybody to realize the importance of educational facilities. Fortunately, large and increasing numbers of expert "educators," not architects, are being trained as survey specialists in the statement and the direction of the solution of school building problems—in schools of education.

Their employment by boards of education is a matter of increasing value and recognition but their enlistment in the organization of the architect is illogical and leads to complications rather than the simplification of schoolhouse construction.

Do not think that I am depreciating the school designing specialist. Far from it, I am doing the reverse. Without telling his clients what they want, nor how they shall use a building after completion there is enough detail left to warrant a life time of study and concentration upon those phases of his work which he cannot evade even though he would.

Of course there are phases of educational surveying and reporting which require the services of the architect, but entirely outside of his commission to plan and supervise a school building. These are briefly estimating the cost of school building construction to meet a recommended program, and sketching to determine the availability and relative value of various sites to assist in making a choice. This should

be a separate order, a relation having nothing to do with a commission to design and build.

As a citizen and as a member of his profession, the normal architect is sure to discharge his duty and improve his opportunity to serve society by cooperating to the fullest extent (without compensation) with legislative bodies, public officers, engineering societies, social organizations, to the end that laws, ordinances and official control, may be based upon science, correct statistical information and the very best practice.

Architects, as a profession, have been inclined to ignore their duties in this line; they should take the initiative and organize in this field, just as they do in relation to a commission to design and construct a building.

This leaves but one phase of the question to consider: The architect's relation to the problems of maintenance or preservation. Except in the case of school architects in the regular and exclusive employ of boards of education, there is no opportunity for such a relation. The architect in general private practice only affects the durability of his buildings by proper selection and disposition of materials in the first instance. When the building is turned over to the owners, its preservation is dependent upon them and their business officials. No building can stand forever alone; it is bound, even the best of them, to deteriorate if neglected.

An American travelling in Europe today might ask a Parisian who the architect of Notre Dame was, expecting to learn the name of the original designer, but the answer instead would be the name of the present architect appointed by the government to take charge of and see to the preservation of the structure at the present time. There is an architect for every important building over there, and so

long as he lives it is generally the original designer; after that, some successor.

Business organization in our country does not seem to admit of such arrangements here, but this in my opinion is largely because the attention of the public has not been called to the wisdom of such a plan.

The solution of such problems as well as the elevation of the work of architectural departments in continuous public employment, to the standards expected of private practitioners is a subject related to the present one, but one which cannot receive attention within the limitations of this paper.

"The all-year school would be best for the school children," said Superintendent R. G. Jones of Cleveland, Ohio, recently. "The child could enjoy organized play, instead of being left to his own devices. I do not see why teachers should work all the year around as well as business people."

—The United States department of labor has established the fact that there are 354 "canal boat children." These children live on boats for a period of from seven to nine months each year and receive therefore but a meagre education. Examinations have proven that these children are below the normal school grades for their ages.

—Superintendent Paul C. Stetson of Dayton, Ohio, favors the semi-annual promotion of pupils and recommends school board action to that end.

—A movement has been started at Moline, Ill., against the corporal punishment in the schools. Superintendent L. A. Mahoney issued a notice to principals in which he said: "Please remind the teachers that any seizure, shaking, slapping, etc., is corporal punishment and ought to be reported as such, and call attention to the following: 1. Slapping or striking is prohibited. 2. Corporal punishment must be administered only with consent of the principal. 3. The teacher must make a written report to the principal of each case of corporal punishment, this report to be sent to the superintendent's office by the principal with the regular monthly reports."



KEEP YOUR SCHOOL CLEAN AND SANITARY

MYCO PRODUCTS INCLUDE

Cedar Spray,
Floor Oil,
Liquid Soap Dispensers,
Disinfectants,
Pine-Coal Tar,
Linseed Oil Soap,
Brooms,
Mops,
Toilet Paper and
Paper Towels,
Myco Spray Oil,
Myco Floor Oilers,
Floor Brushes,
Turkey Feather Dusters.

Unless the school building is kept spotlessly sanitary, it is educationally ineffective and in fact a positive menace to the health of pupils and their educational advance.

Insure cleanliness in your school by furnishing your janitor with good cleaning products. MYCO products have been used in schools for 60 years. This is the time of the year when more than the usual care must be exercised to keep every inch of space in your schools as clean as possible.

We shall be glad to help you solve any problem in schoolhouse cleaning and sanitation. Our experience of more than half a century and our corps of experts in cleaning and janitorial service are at your disposal, for the asking.

Write for literature

MASURY-YOUNG COMPANY
BOSTON, MASS.

TEACH ENGLISH

by the project method and the socialized-recitation plan.

Use Deffendall's JUNIOR ENGLISH COURSE

(In one volume or two. Grades VII-IX)

Ten projects to a year. Plenty of grammar.
BOOK I, Grades VII-VIII, 70c; BOOK II, Grade IX, 80c;
Both in one volume, \$1.00.

Also Newly Issued THE BROOKS ARITHMETICS

Highly inductive. Socialized-classroom method.
Grades IV-VII

First Book in Arithmetic Grades IV-VI, 70c

Junior High School Arithmetic Grades VII-VIII, 80c

LITTLE BROWN & COMPANY
34 Beacon St., BOSTON 221 East 20th St., CHICAGO

HALLECK'S HISTORY OF OUR COUNTRY FOR HIGHER GRADES

BY REUBEN POST HALLECK, M.A., LL.D., formerly
Principal of the Male High School, Louisville, Ky.
Author of "History of American Literature"
and New English Literature"

624 pages - - - - - Illustrated

This new book emphasizes especially the life, progress, and industries of the people, and presents the facts most necessary for all our youth to know, in order to become good American citizens.

The teaching material at the ends of the chapters, includes summaries for review, references for teachers, and under "Activities," various kinds of work for pupils. This is the first school History to give adequate attention to women and to social welfare work. The illustrations, both black and in colors, have been selected with care. The maps are all new, well chosen and adequate.

American Book Company

New York
Cincinnati
Chicago
Boston
Atlanta

330 East 22nd Street
CHICAGO, ILL.

NEWEST BOOKS

Cuzzort and Trask's Health Series

Two books in this unique series are now ready. *Health* and *Health Practices*, for grades 5 and 6, and *Elementary Physiology and Hygiene* for grades 7 and 8.

Bourne and Benton's Story of America and Great Americans

Biography and history effectively told for fifth grade pupils.

Davis' Modern Readings

Two books containing selections from the best works of modern authors. Suitable for junior high school grades.

D. C. HEATH AND COMPANY

BOSTON NEW YORK CHICAGO ATLANTA DALLAS SAN FRANCISCO

Standard Classic Readers

THEIR PLAN AND PURPOSE

The STANDARD CLASSIC READERS are especially prepared for use in the Fourth, Fifth, Sixth, Seventh and Eighth Grades. Each selection is particularly suitable for use in the grade intended. Introductions, biographies, notes, study helps and pronouncing vocabularies of proper names are given wherever needed.

This series contains among its selections material that enables the pupil to become familiar with those characters of fact and fiction most frequently occurring both in high school study and in reading after the years of school life.

Stories from the earliest known literature begin in the Fourth Year Reader and extend throughout the entire series, giving a brief but accurate record of history.

The Readers for the Fourth, Fifth and Sixth Years contain dramatic and dialogue readings; also selections for memorizing. This feature is unique and furnishes this material in compact and convenient form. The purpose of dramatic reading is to stimulate interest, promote correct enunciation, develop expressive reading, and, by allotment of characters to the children, to furnish a distinctive flavor to the selection which can be secured by no other means.

Because of the harmony of the plan, sequence of purpose, distinctiveness of organization and great diversity of content matter, the publishers of STANDARD CLASSIC READERS feel justified in offering this series to schools as one providing in one volume for each school year, at moderate cost, the entire gamut of basic and collateral reading needed.

FOURTH YEAR 60 cents	FIFTH YEAR 60 cents	SIXTH YEAR 60 cents
-------------------------	------------------------	------------------------

SEVENTH YEAR
80 cents

EIGHTH YEAR
80 cents

EDUCATIONAL PUBLISHING COMPANY

Chicago

New York

Boston

THE PILOT ARITHMETICS

STEVENS
MARSH
VAN SICKLE



NEWSON & COMPANY

NEW BOOKS

New Essentials of Biology.

George W. Hunter, A. M., Professor of Biology, Knox College and formerly Head of the Department of Biology, DeWitt Clinton High School, New York. 454 pages. American Book Company.

To hundreds of high school teachers of biology Professor Hunter's "Essentials of Biology" has been the one text on the subject which has seemingly withstood the ravages of time and kept itself young. It was a book spoken of with the utmost respect and one may add with affection.

Now the author has revised his text and made it usable for, let us hope, another twelve years. He has applied the same method of treatment in the "New Essentials of Biology" as in "Essentials of Biology" but some of the "problems" are stated in slightly different words and a few new paragraphs have been added. One of these is on the "Care of the Teeth."

Professor Hunter is definite in his statements, as he should be, in writing for high school students. This is something many authors neglect.

Apparently prohibition has suggested it is not so essential to describe the harmful effects of alcohol. The reviewer is personally convinced that high school and college students need this instruction now more than ever. Then too, it would probably be better if a little more space had been allotted to the drug evil, and that whatever be said anent that subject be made very specific.

The special points of betterment are these (1) the author has shown definitely what he intended to show without merely saying a thing was true and trying to convince the student that it was true by citing various authorities, (2) much of the fine print has been removed from this new edition, (3) the classification is in larger and more readable type, (4) there are thirteen pages of glossary with the pronunciation of words usually found difficult by the stu-

dent. And lastly there is an excellent summary at the end of each chapter. The reviewer is inclined to think that all teachers hope the day will come when every author of a textbook will give such a summary at the end of every theme.—Edward J. Menge.

Estimating the Cost of Buildings.

By Arthur W. Joslin. Cloth, 212 pages U. P. C. Book Co., New York, N. Y.

This is the third edition of a book designed to aid building contractors. It teaches how to read architects' drawings, and how to bring under consideration the various factors entering into construction labors.

Part I and II deal with masonry, iron, marble, metal and carpenter work. Part IV concerns itself with miscellaneous sub-contracts, while Part V is devoted to subjects figuring cost of alterations. Rules for estimating and standardization of units are amply provided.

Problem Arithmetic.

By Harry Brooks. Cloth, 331 Pages. Little Brown & Company, Boston, Mass.

The author who has taught arithmetic for many years has here proceeded to prepare a textbook that presents the subject according to the principles of the inductive method. The pupil is led into performing the fundamental arithmetical operations, and after mastering these, is led into a grasp of minuend, product and quotient. From these he proceeds to various arithmetical principles such as fractions and percentages.

The plan of the book provides lessons suited to classes from the forth to eighth grades inclusive.

Silas Marner.

By George Eliot. Edited by Charles R. Gas-ton. Cloth, 259 pages. The Atlantic Monthly Press, Boston, Mass.

The story of Silas Marner requires no discussion. It stands as an accepted piece of literature. The present volume, however, deserves attention in that it is a new edition of the well known classic, handsomely presented as a part of the Atlantic Library of English classics. The publisher has produced a handy volume the text of which is preceded by an elucidating introduction and followed by questions, notes and interpretative comments.

Introducing

THE PILOT ARITHMETICS

BOOK ONE and the TEACHERS' MANUAL
For Grades Three and Four

and

BOOK TWO
For Grades Five and Six

ADVANCE EDITIONS of these three books are nearing completion. They will be ready for distribution early in July, and specimen copies of each will be sent upon request as they come from the press.

NEWSON & COMPANY
73 FIFTH AVENUE, NEW YORK
623 SOUTH WABASH AVENUE, CHICAGO

The Farmer's Shop Book.

By Louis M. Roehl, Teacher and Supervisor of Farm Shop Work, New York State College of Agriculture at Cornell University, Ithaca, N. Y. Cloth bound, 432 pages. Published by the Bruce Publishing Company, Milwaukee, Wis.

This book is the logical outcome of changes in the industrial life of the nation. With the advent of the automobile the harness maker and the blacksmith have practically passed from the scene. The horse, however, still has a place on the farm. With the development of mass production the individual mechanic of a former day, as found in city and village throughout the land, is less numerous. Again, the cost of skilled labor is exceedingly high.

The changed conditions in the city therefore have brought about new situations on the farm. Good management has suggested the farm shop which is subject to such equipment and direction as will ensure economy and efficiency.

The author has met this new need in a most complete manner. In twenty-three chapters he carries the student through every phase of farm shop work. He deals with shop, household, field, stock, poultry, barn, orchard and crop appliances. He familiarizes the student with bee and bird and playground appliances.

Farm buildings receive thorough attention. This involves hinges, locks and builders' hardware, window repairing, bolts and rivets, vise and metal work, tool handles, saw filing and tool sharpening. Then he tells about ropework and tackle blocks, harness repairing and belt lacing, painting, etc.

Every lesson is supplied with information on materials, dimensions and directions in the several operations. Working drawings and illustrations of the finished job are amply provided.

The book is designed specially to meet the needs of classes in vocational agriculture in the secondary schools.

Government in Illinois.

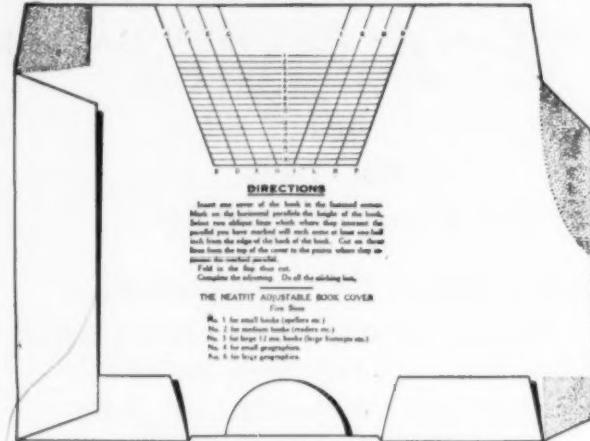
By Walter F. Dodd and Sue Hutchison Dodd. Cloth, 479 pages. The University of Chicago Press, Chicago, Ill.

Here is a study in state government. The student is taught what state government implies, and the taxpayer is informed as to the way his dollar has gone.

**Eight Important Reasons for Selecting the
NEATFIT ADJUSTABLE BOOK COVER
(PATENTED)**

For All Your Textbooks

- ONE:** It is made of a single piece of the highest grade stock which is tough as cloth, outlasting three ordinary covers.
- TWO:** It is cut and folded true and exact.
- THREE:** It is easily and quickly adjusted and fastened.
- FOUR:** It has broad gluing surfaces of sanitary glue which do not come loose.
- FIVE:** It is absolutely waterproof.
- SIX:** It fits snugly and presents an unbroken surface.
- SEVEN:** The patented device for adjusting the covers saves much time, enabling the pupils to do neat work in fitting the cover.
- EIGHT:** Considering its remarkable strength and adequate wearing qualities it has no equal in flexibility.



NEATFIT ADJUSTABLE

"The Best Book Cover ever made for School Use."
**MILLIONS OF THE NEATFIT ADJUSTABLE
BOOK COVERS ARE SOLD EACH YEAR**

If you are not acquainted with the Neatfit Adjustable Book Covers we shall be very glad to send samples for your consideration. If you call for bids kindly send us your specifications.

IROQUOIS PUBLISHING COMPANY, Inc.

Home Office: Syracuse, New York

New York Office
358 Fifth Ave.

Chicago Office
1811 Prairie Ave.

The Neatfit Adjustable Book Cover Will
Increase the Life of the Textbook 50%

The authors have approached their task with the thought of providing a complete exposition of government in Illinois, covering every phase of the subject. The student is told the history of the state and the development of government since its foundation. The book also defines the several branches of government, the duties of citizenship and the election machinery. The authors have succeeded in producing a volume that is bound to excite a greater interest in government and a higher appreciation of its services.

A Christmas Carol.

By Charles Dickens. Edited for School Use by Carol L. Bernhardt, S. J. Paper, 128 pages. Loyola University Press, Chicago, Ill.

The Rime of the Ancient Mariner.

By Samuel Taylor Coleridge. Edited for school use by Aloysius J. Hogan, S. J. Paper, 64 pages. Loyola University Press, Chicago.

Carefully edited and well printed, and low in cost.

Practice Tests in Common Fractions.

By Edward Wilderman. Board, 34 pages. Price 30 cents. Teachers' Key, 40 cents. The Plymouth Press, Chicago, Ill.

This book affords a wealth of well graded drill material.

Reading to Find Out.

By Frances Ross. Cloth bound, 90 pages. Published by the Macmillan Company, New York.

This little book is intended as a silent reader for primary grades. In little short stories, essays and poems, children are told interesting things about playing out and indoor games. The volume is printed in large type and prettily illustrated.

A Guide to Educational Measurements.

By Harlan C. Hines. Cloth, 270 pages. Price \$1.90. Houghton Mifflin Co., Boston, New York, Chicago, San Francisco.

The author approaches his subject of intelligence tests with the thought that in the maze of formulae and systems the simple is most desirable, and that at this time a "test of tests" may prove serviceable. He teaches the use of the recognized tests, and affords introductions to "elements of statistical procedure, intelligence testing and the use of a selected list of

educational tests and measures covering both the elementary and secondary school fields."

The training of an educational statistician as well as the presentation of statistical facts is well covered. The book then deals separately with the measurement of mental ability and of achievement and aims to treat phases hitherto untouched by other authors on the subject.

Bolenius Primer.

By Emma Miller Bolenius. Cloth bound, 120 pages. Published by Houghton Mifflin Company, Boston.

This primer excels in its attractive presentation of child stories. The immediate things and surroundings of child concern are presented in colored pictures and in terse reading.

Institutional Household Administration.

By Lydia Southard. Cloth, 214 pages, illustrated. Price \$2.00. J. B. Lippincott Co., Philadelphia.

This book deals with the management of a large household. It contemplates efficiency and economy, and that order and neatness which should be maintained in an institution where many persons are housed. While the author contemplates his work as a helpful guide for those in charge of an institution, it may also serve as a textbook for classroom instruction on many phases of good housekeeping on a large scale.

Songs of Childhood.

By Thaddeus P. Giddings, Will Earhart, Ralph L. Baldwin and Elbridge W. Newton. Cloth bound, 140 pages, 130 songs, price 68 cents.

Introductory Music.

Cloth bound, 176 pages, 182 songs, price 72 cents.

Elementary Music.

Cloth bound, 192 pages, 206 songs, price 76 cents. Published by Ginn & Company, Boston, New York, Chicago.

These three volumes may properly be dealt with in one review. The first is adapted for little children who can read both simple notes and words. The songs are well chosen.

The second contains a larger number of songs and includes a large range of children's voices. Again, the choice of songs is well made.

The third volume is adapted for larger children. It includes songs which convey certain

Strong, Durable, Economical Educational Re-binding

**Boards of Education, Colleges, Etc.,
Please Note**

Do not discard valuable books. Send them to The Educational Bindery Company, and be convinced it pays to re-bind.

Our Specialty—The re-binding of School and College Text Books, Hymnals, Law Books, etc., in Cloth and Buckram, with well printed titles.

Good binding at a reasonable price.

We are one of the oldest established School Book re-binders in the country. Our workmanship and prices are in a class by themselves.

We re-bind three to four books for the net cost price of one new copy. Send a list showing quantity of each item you contemplate re-binding and we will quote prices promptly.

If you wish a sample of our work send us any school book and we will re-bind it free of charge.

**The Educational Bindery Company
Not Inc.**

**1126 Warren St.
EVANSTON, ILL.**

lessons of life and frequently introduces touches of humor and the elements of special child interest.

Introductory Physics.

By Lathrop D. Higgins. Cloth, 12 mo., 440 pages. Price \$1.48. Ginn & Co., Boston, Mass.

This book is planned and written upon the broad basis that the sciences in the high school have full cultural value and in addition certain vocational and social values which make them particularly valuable for those children who cannot continue into college. The treatment is simple and quite popular and proceeds from very fulsome descriptions and discussions at the beginning to a more compact, technical style as the student advances in the work. Constant use is made of familiar applications of principles to every day machines and devices found in the industry and commerce and in science. The scope and arrangement of topics follow accepted lines and each chapter is amplified with problems and questions. The wholly new material is chiefly in the form of illustrations and applications and in a carefully written chapter on radiant energy and the recent applications to wireless telephony, etc. An appendix contains supplementary problems.

Story Plays.

By Louise C. Wright. Cloth, 127 pages. Price, \$1.60. A. S. Barnes & Co., New York.

Teachers who are seeking a wide variety of play material for the first and second grade will find the present book a treasure house. The author has drawn upon her long experience and her broad knowledge of successful methods in physical education and has gathered a great variety of initiative, story and movement plays that have been found most interesting, educationally correct and widely successful.

Directions are clear and illustrations, where needed, are ample.

Personal Shorthand.

By Godfrey Dewey. Cloth, 199 pages. World Book Co., Yonkers, N. Y.

The author has here provided a simple textbook on shorthand. He calls it personal shorthand in contradistinction of methods employed in training the professional stenographer. In brief, the book addresses itself to the non-professional class—those who require a shorthand as a personal aid to their vocation.

Maps, Charts, Globes

NINETY-EIGHT years of progressive map publishing by W. & A. K. Johnston, Ltd., the world's leading geographical publishers, and, during the last two decades, by the vigorous publishing efforts of ourselves, their United States Agents, have made available the comprehensive "Johnston-Nystrom Line"—the most widely purchased by American Grade Schools, High Schools, Normal Schools, Colleges and Universities.

Briefly stated, the variety of map, globe and chart equipment as listed below is included in

The JOHNSTON - NYSTROM Line

Political Maps

Physical Maps

Commercial Maps

Foreign Text Maps

State Maps

Historical Maps

Blackboard Outline Maps

Desk and Wall Outline Maps

Globes

History Pictures

Geographical Pictures

Physiology Charts

Botany and Zoology Charts

Atlases

A request will bring you our complete catalog No. A236



A COMPLETE CHAIN OF STENOGRAPHIC INSTRUCTION *Four Strong Links That Pull Together*

In these books imitative processes have been discarded for problems that develop constructive ability.

Gregg Shorthand Manual

A complete presentation of the Gregg system of shorthand.

Gregg Speed Studies

A dictation book plus. A full fledged text, correlating with the Manual as logically as a ledger does with a cash book. It completely eliminates the line between theory and practice. A definite speed building program.

The New Rational Typewriting

Based on scientific research, The New Rational presents features never before incorporated in a typing text. The underlying idea in the New Rational is to develop unusual **typing power**—which involves more than the mere operation of the keys—by eliminating negative, mechanical imitation, and substituting positive, constructive work that secures constant attention and vital interest. Since the first Rational was published it has been the leader in an educational presentation of the subject. The old Rational is the unchallenged leader of today; the new Rational simply carries it into a bigger area of accomplishment.

Secretarial Studies

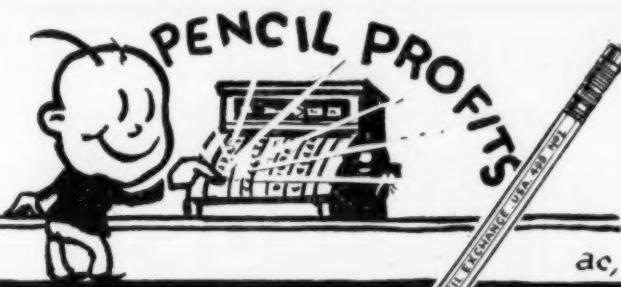
This book undertakes the solution of three specific problems:

- To give the student a useful, workable background of business knowledge, correlated with stenographic work.
- To develop and perfect his ability as a shorthand writer and typist.
- To provide sufficient laboratory work in solving definite secretarial problems to develop real business power.

Equipped with these books, your Stenographic Department is prepared to meet effectively the demands of present-day business.

No overlapping—no wasted effort

THE GREGG PUBLISHING COMPANY
New York Chicago Boston San Francisco London



Do you give enough attention to Pencils?

The school child's hand is in the formative stage. The ease with which a writing tool is held and used has considerable influence in developing the pupil's fingers and hand, as well as in determining writing ability. Fluent, unconscious writing aids clear thinking and scholarship in general.

These facts explain the reasons why Pencil Exchange has made a special study of requirements in school pencils. Penex Pencils are carefully and expertly made of high grade materials. They are perfectly balanced, comfortable to hold, easy to sharpen and the lead is smooth writing, long lasting, strong and accurately graded to meet all individual needs.

Penex Two-in-One is an ordinary size, round pencil with large diameter lead especially suited for beginners. Penex Scribe is round, untipped, and comes in four grades for general use. Penex Calendar is hexagon—yellow and green finish, tipped or untipped. Penex Semi-Hex is the popular commercial pencil supplied in five different degrees. Its rounded corners make it comfortable for growing fingers to hold.

Penex School Pencils, Crayons and Assortments have been used for many years in schools throughout the country. They are popular with school boards, teachers and pupils alike. They are fairly priced and their quality makes them doubly economical.

Ask your school supplies jobber about Penex Pencils. If he hasn't them write us direct for samples and full information. Address Department J.



PENCIL EXCHANGE

MAKERS OF LEAD PENCILS
FOR THREE GENERATIONS—
JERSEY CITY, N.J. U.S.A.



Distributed by these Jobbers:

The Abbott Educational Co., Chicago, Ill.
Arkansas School Book Dept., Little Rock, Ark.
Claude J. Bell, Nashville, Tenn.
A. M. Blood Co., Rock Island, Ill.
Werner E. Bramick Co., Detroit, Mich.
Buxton & Skinner Co., St. Louis, Mo.
Capitol Supply Co., Sioux City, Iowa.
Carolina School Supply Co., Charlotte, N. C.
Centennial School Supply Co., Denver, Colo.
Central School Supply Co., Louisville, Ky.
Clanton & Webb Co., Atlanta, Ga.
Colburn School Supply Co., Grand Forks, N. D.
V. E. Danner & Co., Oklahoma City, Okla.
Deseret Book Co., Salt Lake City, Utah.
The H. & W. B. Drew Co., Jacksonville, Fla.
Dulany-Varney Co., Baltimore, Md.
Eau Claire Book & Sta. Co., Eau Claire, Wis.
Educational Exchange Co., Birmingham, Ala.
Educational Supply Co., Painesville, Ohio.
Educator Supply Co., Mitchell, So. Dakota.
D. K. Elliott Co., Pittsburgh, Pa.
R. A. Fife Corp., Mamaroneck, N. Y.
J. K. Gill Co., Portland, Ore.
D. W. Goble Printing Co., Greenfield, Ind.
F. F. Hansell & Bro., Ltd., New Orleans, La.
L. B. Herr & Co., Lancaster, Pa.
J. S. Latta, Inc., Cedar Falls, Iowa
W. J. McIlwain, Little Rock, Ark.
McKee Stationery Co., Great Falls, Mont.
McKown & Carnes Co., Pittsburgh, Pa.
Metropolitan Supply Co., Cedar Rapids, Iowa.
Michigan Educational Co., Lansing, Mich.
Midwest School Supply Co., Kansas City, Mo.
Minneapolis School Sup. Co., Minneapolis, Minn.
Mississippi Valley School Sup. Co., St. Louis, Mo.
Missouri Stores Co., Columbia, Mo.
The Multi-Color Co., Detroit, Mich.
Nebraska School Supply House, Lincoln, Nebr.
Northwest School Furn. Co., Spokane, Wash.
Northwestern School Supply Co., Minnesota
Trf., Minn.
Omaha School Supply Co., Omaha, Nebr.
Peabody School Furniture Co., Topeka, Kans.
Practical Drawing Co., Dallas, Tex., Chicago, Ill.
Rodgers School Supply Co., Jacksonville, Ill.
St. Paul Book & Stationery Co., St. Paul, Minn.
Southwest Educational Exchange, Albuquerque,
N. Mex.
Superior School Supply Co., Kansas City, Mo.
C. F. Weber & Co., San Francisco, Cal.
Los Angeles, Cal.
Phoenix, Ariz.
Reno, Nevada.
J. F. Wendling School Supply Co., Portland, Ore.
Western Drug & Chem. Co., Sioux Falls, S. D.
T. R. Woodburn Printing Co., Terre Haute, Ind.

Get in touch with one of the above Distributors for sample of LACLEDE Modeling Clay, prices and descriptive circular.

OTHER JOBBERS:

WRITE FOR FULL DETAILS OF OUR INTERESTING PROPOSITION

LACLEDE-CHRISTY, ST. LOUIS, MO.

Established in 1844

F255B

YOUR NEXT YEAR'S SUPPLY OF "CRAYOLA" CRAYONS

A SUCCESSFUL lesson in drawing is measured in terms of beauty in color, of excellence in technique, of display in originality. It is never measured in terms of pennies saved through cheapness of materials used.

"CRAYOLA" CRAYONS are recommended to supervising officers for next year's drawing crayon supplies. The goodness of "CRAYOLA" is established. It is easy to handle, just right in hardness, uniform in texture, satisfactory in color mixture. "CRAYOLA" boxes contain varied assortments for differing needs. "ARTISTA" WATER COLORS meet all the standard water color requirements. They come in attractive boxes.

To supervising officers we recommend a supply of LECTURERS CRAYON—a box for each teacher, to obtain interesting blackboard work. We publish a brochure on the subject, free to supervisors.

BINNEY & SMITH CO.
Makers of
GOLD MEDAL CRAYONS
"ARTISTA" Water Colors

41 E. 42nd St. New York



THE CATALOG OF SERVICE

Full of New Ideas for Drawing, Art and Hand Work

Prang
"Enamelac"

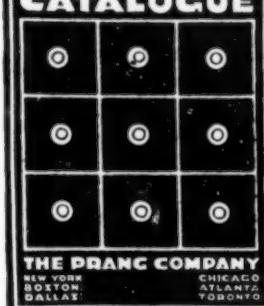
Prang
"Ivoren"

Prang
"Stixit"
Paste

Prang
"Bateeko
Dyes"

Prang
"Modelit"

PRANG
CATALOGUE



THE PRANG COMPANY
NEW YORK
CHICAGO
DALLAS

Prang
"Prismex
Papers"

Prang
"Prismo"
Papers

Prang
"Enginex
Papers"

Prang
"Juteen"
Twine

Prang
"Permodel"

Let This Catalog Help You

This is our "67th Birthday" Catalogue. You can SAVE MONEY—INSURE QUALITY—and RECEIVE SERVICE by ordering from this new Prang Catalogue. It is FREE to Teachers.

Let us know in which Products you are most interested—so we may more intelligently serve you.

Send for this "School Catalogue"

THE PRANG COMPANY

1922 Calumet Ave.,
Chicago

118 E. 25th St.,
New York

Federal Standard School Telephone Systems are the BEST for School - Installations



**Annunciator and
Mat
with Desk Set**

Federal Telephone and Telegraph Co.
BUFFALO N. Y.

THIS Company brings the experience of 23 years in the manufacture of telephone apparatus to the special problems of installing school telephone systems.

The lasting efficiency of Federal Standard Telephone systems is known the world over.

Samples and Complete Quotations to meet your requirements will be submitted on request.

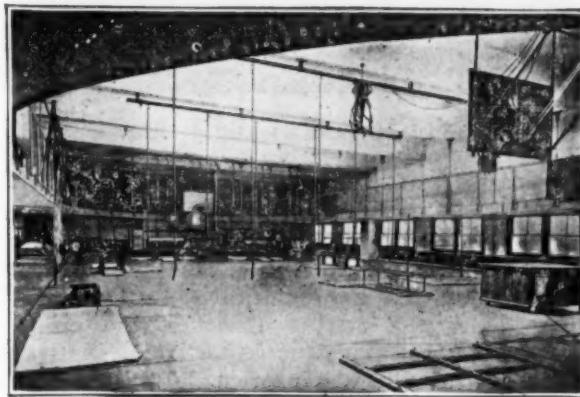
*A Good Proposition
for Contractors.*

ORDER NOW!!

AND HAVE YOUR SCHOOL
GYMNASIUM

READY FOR FALL OPENING

PLANS AND SPECIFICATIONS SUBMITTED
UPON REQUEST



CHICAGO GYMNASIUM EQUIPMENT COMPANY

1835 W. LAKE ST. - - - CHICAGO

MANUFACTURER OF
MODERN SCHOOL GYM EQUIPMENT

PLAN FOR A TEACHER RATING SCALE AND SALARY SCHEDULE.

(Continued from Page 39)

poor or unacceptable, and suggests ways for making the good better and the poor good. These various points are entered in the superintendent's notes of his visits opposite the proper items. The superintendent may, if he has so arranged with the teachers, enter a numerical value for such items as he cares to specifically mark, and give the teacher a numerical rating for that visit. Thus, if a superintendent gave a teacher a mark on each of seven items of his list, and if the aggregate of the seven marks were 60, the teacher's mark for that visit would obviously be $60 \div 7 = 8.3$. Thus the teacher would be helped in two ways. She would see what was praised and thus marked for continuance, and what was to be improved.

The values or marks thus found will at the end of the year, when the final mark is computed, be included, bringing it to pass that each visit and mark for it are included in the year's mark. This assures the measurement and expression of the teacher's effectiveness by definite details that are observable and measurable by the superintendent and by the teacher. Hence the use of the rating scale starts two indispensable operations of mind for the happiness of the teacher. She can joyously contemplate what has been praised and she can hopefully start her effort to secure an improved rating at the next rating period. Twofold improvement is surely an increase of effectiveness and fully attains the goal sought by rating.

The Measuring Scale.

Values for the items of the rating list must next be fixed. Without such a scale no definite procedure will be possible. Usually the scales

consist of the values of from 1 to 5. This is simple and entails little labor in recording. Superior may be 1 or 5, failure 5 or 1, as any system prefers. Numbers are in general preferable to letters. If the same scale is used for other purposes in the system, it is advisable to arrange these values in accordance with the other scale. The 1 to 5 scale often does not permit a fine enough distinction of values; the 1 to 10 scale is a more nearly ideal scale. Whatever scale is used, each digit should have a very definite value assigned to it. Thus, if the 1 to 10 scale is used, 5 might mean "needs suggestions from supervisor for everything, or uses a few suggestions but misses the point of most of them; or might become a teacher; or deserving of further trial and help."

The proper fitting of the rating list of items of excellence and of the measuring scale of values will adjust itself easily in practice. The measuring scale does not establish an absolute value, such as the dollar, but it does make possible a comparison of values of teaching excellence. Until we devise a better scale we shall have to use such a one as is here suggested, because this enables us to approximately express effectiveness of teaching or to show the relative effectiveness of the same teacher at different times.

If it be conceded that efficiency principles require the adoption of a teacher rating list and justify payment of teachers by a salary schedule graded so as to pay more for higher efficiency, certain principles must guide in the construction of the measuring scale and of the rating list. The rating excellences must first be those that comprehend all the qualities of good teaching, salutary discipline, and thorough learning.

*The writer has devised such a scale with the 1 to 5 digits and affixed values to each digit in Chapter XIV of Common Sense in School Supervision. (Bruce, Milwaukee.)

The excellences must be definitely recognizable so susceptible of valuation that two disinterested observers could arrive at approximately identical values, just as two surveyors can arrive at identical values for the area of a field of given dimensions. The judgment when communicated to the teacher should be verifiable by her, since she knows fully all the conditions which make up the occurrence which is being judged. It should satisfy her because it confirms her own belief as to excellences, and chasten her because it verifies her own fears about shortcomings. The very poor teacher will automatically be apprised of the fact that she will need to go where the exactions are less steep. When the rating list, measuring scale and salary schedule thus automatically pay most to the most effective teacher, make all the teachers more effective and eliminate the ineffective teachers, education has a right to claim that it is applying the principles of efficiency.

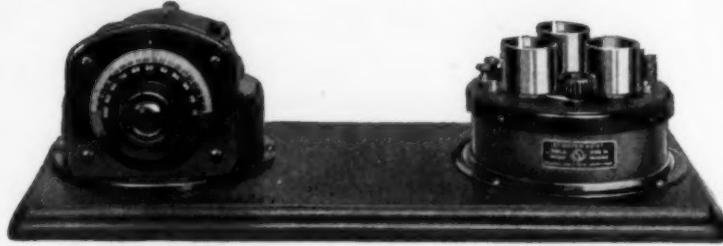
In conclusion, the introduction of teacher rating must begin with the arousal of interest in it by showing how the teacher's self-interest can be advanced. Results of operation of the practices in other successful systems must be brought in accompanied by testimony of the success.

Next a list of rating merits must be arranged in terms that require but one excellence to be named in one item.

Next a measuring scale must be constructed with as much difference between the numerical terms as can be fairly judged by observation in the qualities of the rating list.

Next both the rating list and the measuring scale must be studied by the teachers of the system, and their significance in the thought of the superintendent who does the marking explained so that teachers and superintendent

RADIO SETS AND PARTS



ATWATER KENT SET No. 3945

ATWATER KENT RADIO sets and parts embody the very latest developments in radio equipment. They are built of the very finest materials and the design is such that maximum efficiency is obtained with the minimum adjustments. The volume of sound, clarity of tones and range of Atwater Kent equipment is remarkable. Attractive in appearance, moderate in price and with simplified controls, the operating qualities will satisfy the most particular.

Send for Catalog No. 22B

E.W.A. ROWLES CO.
MANUFACTURERS.
SCHOOL FURNITURE AND SUPPLIES
2345-51 SO. LA SALLE ST.
CHICAGO, ILL.

shall have equivalent conceptions for use in judging values of excellences.

Next observation of teaching must begin and must be accompanied by conferences between superintendent and teachers to establish a basis for complete and cordial sympathy between them. Provision must also be made to include the average mark of all the visits in the final rating mark for the year.

The construction of such a rating list, measuring scale and salary schedule is a job that requires connected thinking, lucid exposition, use of precise terminology and entirely impersonal contemplation, besides a complete and thorough knowledge of the science and art of teaching. It is not a job for a novice. When completed (notice, please, that word is not *perfected*), and in successful operation, the results justify all the time and thought spent upon it. Superintendent, teachers, and even school board members who have had experience under the plan of playing politics to secure salary increase, will be glad to admit the superiority of this plan as the changed results disclose themselves. Even the taxpayer may be impressed by the absence of agitation and propaganda for salary increase and remark the reduction of friction in school operation.

The concluding statement may well be this fact (learned by experience): The amount of increase of any given schedule is far less important than certainty of concurrence in judgments in use of the measuring scale. When superintendent and teachers are in cordial unanimity on these terms and values, the operation of the plan will win almost universal acceptance and adhesion of the teachers, and will elicit from them such a statement as this, "We like our system because it treats everybody fairly." No higher commendation can be spoken for a rating scale and its related salary schedule.

PROGRESS IN CITY SCHOOL ADMINISTRATION.

(Concluded from Page 42)

execute through them, there has been a general recognition of the superintendent as an executive officer of the board of education, charged with the nomination of teachers, the recommendation of textbooks, and the preparation of course of study, but the policy of making him the one administrative officer has not been generally adopted, though this is the tendency. Business experience proves that a corporation cannot prosper with more than one executive officer. There is the board of directors of the corporation which decides upon policies recommended by the manager, to whom all other employees are subordinates.

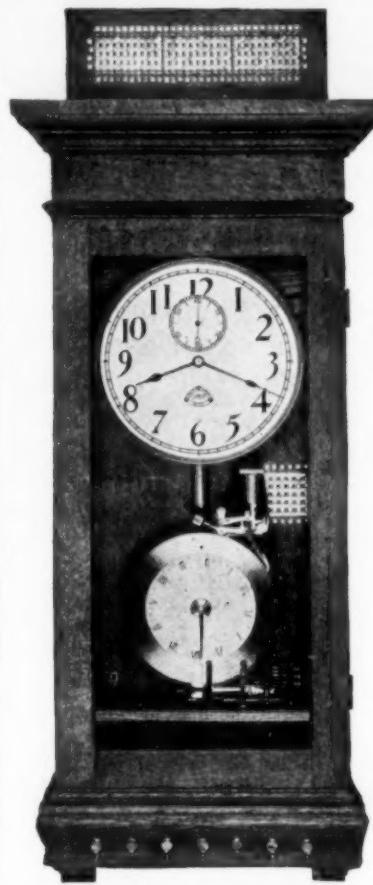
The same principle applies in the administration of a school system. The board of education should legislate and the superintendent execute in all matters affecting the school. He should be the one executive. All other employees of the board should be subordinate to the superintendent, reporting to the board through him. By this arrangement responsibility is definitely fixed. The superintendent stands or falls as he can or as he cannot carry out the plans adopted by the school board."

SCORE CARD FOR THE HIGH SCHOOL PRINCIPAL'S REPORT.

(Concluded from Page 53)

Conclusion.

Through the application of this card to his annual report, any high school principal can assign to each item such a value as represents the real worth of the annual report in this particular. The total of the scores assigned to the several items will represent the value of the report and therefore, to a degree at least, the value of the work done when scored on the 1,000 point basis.



Electric Clock Systems

Our equipment is most simple, economical and reliable.

We can supply the needs of the small school as well as the large one, at prices in proportion.

There is no reason why your school should not have a suitable system of this kind.

Some users:

Board of Education, Philadelphia, Pa., 125 installations;
Board of Education, Baltimore, Md., 15 installations;
Board of Education, Butte, Mont., 7 installations;
Board of Education, El Paso, Tex., 5 installations;
Board of Education, Durham, N. C., 2 installations.

Write for literature.

LANDIS ENGINEERING & MFG. CO.

Waynesboro,
Pa.

The card in its present form, then, sets forth a majority of the items of procedure which may well characterize the activities of a high school faculty and student body. In addition, the weightings assigned to the several items make it possible for a high school principal to check his own judgment of relative values against that of forty experienced and professionally minded students of the work of a high school executive.

TWO INTERESTING HIGH SCHOOL STADIA.

(Concluded from Page 54)

stands themselves have been planned for easy ascent and safe descent and adequate comfort in seating. Lines of vision for all parts of the field have been carefully preserved. Economy of construction and the possibility of later increasing the seating capacity have been considered.

A CHICAGO SCHOOL BOARD PRESIDENT'S VIEWS.

(Continued from Page 46)

be used for school purposes only 200 days per year, or should the summer vacations be shortened? Should the curriculum be arranged into four quarters, three months each, so that certain students and teachers could take their vacations in the winter months and others in the summer? Is the platoon system pedagogically sound? Should we have junior high schools for the seventh and eighth grammar grades and first year high schools? How and where should we determine the location of new buildings?

The Cost of Education.

"I am informed that approximately one-third of all the money paid in taxes is now going to the support of public schools for educational purposes. Dr. Henry D. Pritchett, president of the Carnegie Foundation for the Advancement of Learning, declared in the seventeenth annual

(Concluded on Page 151)

PALMER'S CAN'T SPREAD ERASER

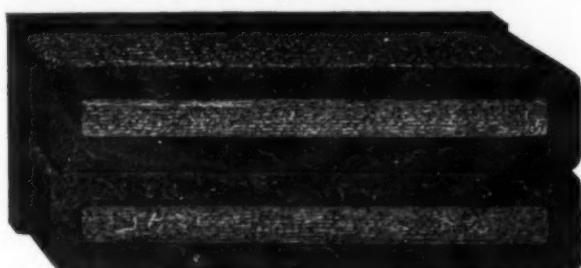


As its name would indicate—the Palmer Eraser simply cannot spread, because of its peculiar, patented design and construction.

It gathers the dust and holds it—yet may be cleaned as readily as any other eraser.

It is noiseless and dustless—has a soft, open cleaning surface, and will not mar nor scratch the blackboard.

The high quality of felt used, and the patented construction (Patented Oct. 26, 1915), insure unusually satisfactory wear and service.



Palmer's

PALMER CO.
MILWAUKEE, U. S. A.

Manufacturers for the Jobber.

Eureka Bulletin Boards Serve Best



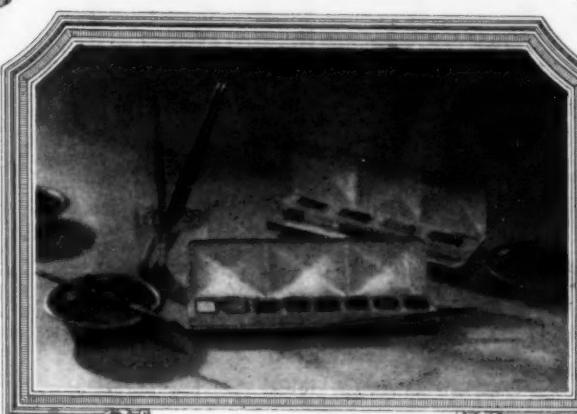
You will find many uses for bulletin boards in your school. For classroom instruction as illustrated above they are valuable aids to the teacher. When used in the corridors, library, cafeteria, gym and teachers' rooms they make for efficiency in many ways.

EUREKA BULLETIN BOARDS
of cork felt composition will withstand hard usage and are guaranteed against warping and chipping.

Our catalog containing many suggestions for use of cork products in schools, is available for school executives, architects and contractors.

PADDOCK CORK COMPANY
1209-17 DE KALB AVE.
Brooklyn, N. Y.

MAKERS OF THE UNUSUAL IN CORK



DEVOE SCHOOL COLORS

Colors that Simplify the teachers' problem

THE art instructor faces difficulties enough without the additional handicap intractable water colors impose.

Devoe Colors put no difficulties in the instructor's way. Their good lifting and blending qualities; their uniformity of texture and hue, help the instructor and pupil both to achieve the best results from their efforts.

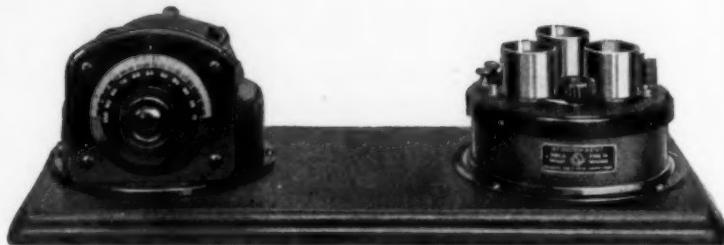
DEVOE SCHOOL COLORS

Manufactured by

Devoe & Reynolds Co., Inc.
New York Chicago



RADIO SETS AND PARTS



ATWATER KENT SET No. 3945

ATWATER KENT RADIO sets and parts embody the very latest developments in radio equipment. They are built of the very finest materials and the design is such that maximum efficiency is obtained with the minimum adjustments. The volume of sound, clarity of tones and range of Atwater Kent equipment is remarkable. Attractive in appearance, moderate in price and with simplified controls, the operating qualities will satisfy the most particular.

Send for Catalog No. 22B

E.W.A. ROWLES CO.

MANUFACTURERS.
SCHOOL FURNITURE AND SUPPLIES
2345-51 SO. LA SALLE ST.
CHICAGO, ILL.

shall have equivalent conceptions for use in judging values of excellences.

Next observation of teaching must begin and must be accompanied by conferences between superintendent and teachers to establish a basis for complete and cordial sympathy between them. Provision must also be made to include the average mark of all the visits in the final rating mark for the year.

The construction of such a rating list, measuring scale and salary schedule is a job that requires connected thinking, lucid exposition, use of precise terminology and entirely impersonal contemplation, besides a complete and thorough knowledge of the science and art of teaching. It is not a job for a novice. When completed (notice, please, that word is not *perfected*), and in successful operation, the results justify all the time and thought spent upon it. Superintendent, teachers, and even school board members who have had experience under the plan of playing politics to secure salary increase, will be glad to admit the superiority of this plan as the changed results disclose themselves. Even the taxpayer may be impressed by the absence of agitation and propaganda for salary increase and remark the reduction of friction in school operation.

The concluding statement may well be this fact (learned by experience): The amount of increase of any given schedule is far less important than certainty of concurrence in judgments in use of the measuring scale. When superintendent and teachers are in cordial unanimity on these terms and values, the operation of the plan will win almost universal acceptance and adhesion of the teachers, and will elicit from them such a statement as this, "We like our system because it treats everybody fairly." No higher commendation can be spoken for a rating scale and its related salary schedule.

PROGRESS IN CITY SCHOOL ADMINISTRATION.

(Concluded from Page 42)

execute through them, there has been a general recognition of the superintendent as an executive officer of the board of education, charged with the nomination of teachers, the recommendation of textbooks, and the preparation of course of study, but the policy of making him the one administrative officer has not been generally adopted, though this is the tendency. Business experience proves that a corporation cannot prosper with more than one executive officer. There is the board of directors of the corporation which decides upon policies recommended by the manager, to whom all other employees are subordinates.

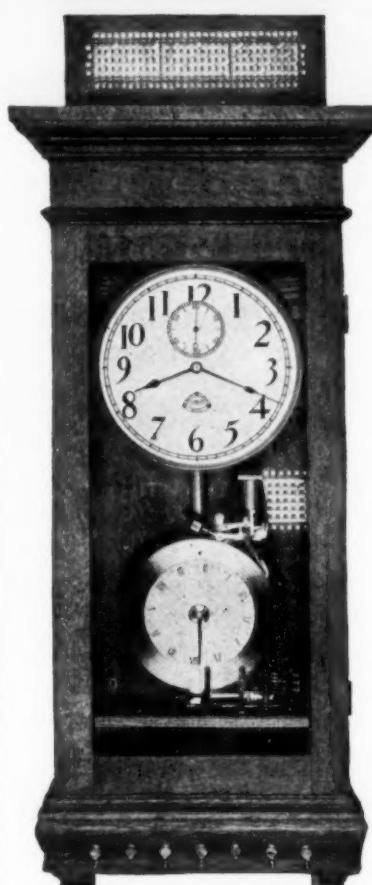
"The same principle applies in the administration of a school system. The board of education should legislate and the superintendent execute in all matters affecting the school. He should be the one executive. All other employees of the board should be subordinate to the superintendent, reporting to the board through him. By this arrangement responsibility is definitely fixed. The superintendent stands or falls as he can or as he cannot carry out the plans adopted by the school board."

SCORE CARD FOR THE HIGH SCHOOL PRINCIPAL'S REPORT.

(Concluded from Page 53)

Conclusion.

Through the application of this card to his annual report, any high school principal can assign to each item such a value as represents the real worth of the annual report in this particular. The total of the scores assigned to the several items will represent the value of the report and therefore, to a degree at least, the value of the work done when scored on the 1,000 point basis.



Electric Clock Systems

Our equipment is most simple, economical and reliable.

We can supply the needs of the small school as well as the large one, at prices in proportion.

There is no reason why your school should not have a suitable system of this kind.

Some users:

Board of Education, Philadelphia, Pa., 125 installations;
Board of Education, Baltimore, Md., 15 installations;
Board of Education, Butte, Mont., 7 installations;
Board of Education, El Paso, Tex., 5 installations;
Board of Education, Durham, N. C., 2 installations.

Write for literature.

LANDIS ENGINEERING & MFG. CO.

Waynesboro,
Pa.

The card in its present form, then, sets forth a majority of the items of procedure which may well characterize the activities of a high school faculty and student body. In addition, the weightings assigned to the several items make it possible for a high school principal to check his own judgment of relative values against that of forty experienced and professionally minded students of the work of a high school executive.

TWO INTERESTING HIGH SCHOOL STADIA.

(Concluded from Page 54)

stands themselves have been planned for easy ascent and safe descent and adequate comfort in seating. Lines of vision for all parts of the field have been carefully preserved. Economy of construction and the possibility of later increasing the seating capacity have been considered.

A CHICAGO SCHOOL BOARD PRESIDENTS VIEWS.

(Continued from Page 46)

be used for school purposes only 200 days per year, or should the summer vacations be shortened? Should the curriculum be arranged into four quarters, three months each, so that certain students and teachers could take their vacations in the winter months and others in the summer? Is the platoon system pedagogically sound? Should we have junior high schools for the seventh and eighth grammar grades and first year high schools? How and where should we determine the location of new buildings?

The Cost of Education.

"I am informed that approximately one-third of all the money paid in taxes is now going to the support of public schools for educational purposes. Dr. Henry D. Pritchett, president of the Carnegie Foundation for the Advancement of Learning, declared in the seventeenth annual

(Concluded on Page 151)

PALMER'S CAN'T SPREAD ERASER

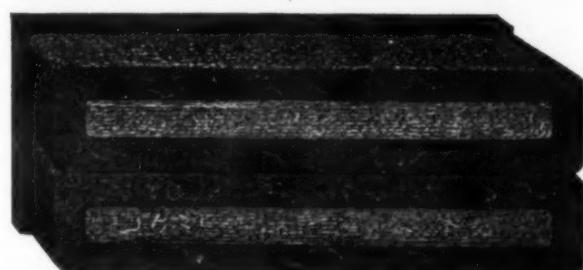


As its name would indicate—the Palmer Eraser simply cannot spread, because of its peculiar, patented design and construction.

It gathers the dust and holds it—yet may be cleaned as readily as any other eraser.

It is noiseless and dustless—has a soft, open cleaning surface, and will not mar nor scratch the blackboard.

The high quality of felt used, and the patented construction (Patented Oct. 26, 1915), insure unusually satisfactory wear and service.



Palmer's
CORK FELT PRODUCTS

PALMER CO.
MILWAUKEE, U. S. A.
Manufacturers for the Jobber.

Palmer's
CORK FELT PRODUCTS

Eureka Bulletin Boards Serve Best



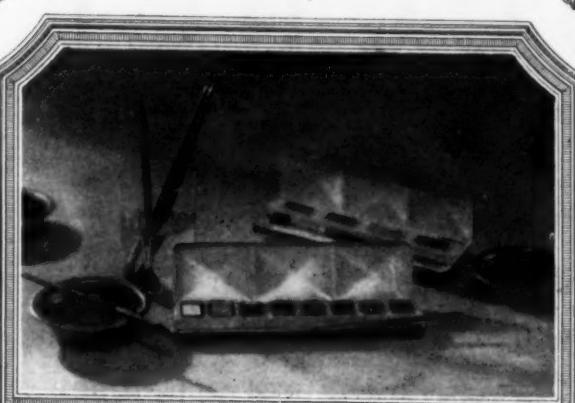
You will find many uses for bulletin boards in your school. For classroom instruction as illustrated above they are valuable aids to the teacher. When used in the corridors, library, cafeteria, gym and teachers' rooms they make for efficiency in many ways.

EUREKA BULLETIN BOARDS
of cork felt composition will withstand hard usage and are guaranteed against warping and chipping.

Our catalog containing many suggestions for use of cork products in schools, is available for school executives, architects and contractors.

PADDOCK CORK COMPANY
1209-17 DE KALB AVE.
Brooklyn, N. Y.

MAKERS OF THE UNUSUAL IN CORK



DEVOE SCHOOL COLORS

Colors that Simplify the teachers' problem

THE art instructor faces difficulties enough without the additional handicap intractable water colors impose.

Devoe Colors put no difficulties in the instructor's way. Their good lifting and blending qualities; their uniformity of texture and hue, help the instructor and pupil both to achieve the best results from their efforts.

DEVOE SCHOOL COLORS

Manufactured by

Devoe & Raynolds Co., Inc.
New York Chicago



Scenery

Asbestos curtains,
Velour curtains

and

Stage scenery for your Auditorium stage. Special, Historic, Scenic or Architectural paintings for front drop curtains.

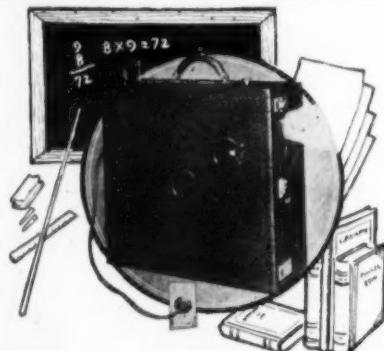
Twenty years of experience in equipping High Schools has placed us in a position to know the particular requirements for your stage.

Write us for further information or request call from our representative

Twin City Scenic Company

2819 Nicollet Avenue
Minneapolis, Minnesota

Eastern Office:
301 Broadway Market Building
Detroit, Michigan



Part of Your Equipment

How could you get along without blackboards and text books? Sounds foolish, doesn't it? Yet, the time was—not so very long ago—when these present necessities were considered luxuries.

You may not think motion pictures a necessity in your school, yet the time is coming—not so far away—when a school without portable projectors will not be considered really properly equipped.

Take the DeVry. With this little projector children can gain an exact idea of their studies—a country becomes more than a mere spot of color on the map. Trees and animals, manufacturing processes, geological forms—all are brought right into the class room for intimate study. No longer does the child hear and guess—he sees and knows!

Progressive schools today are using DeVrys. Your school, too, needs this master of projectors. Let our folder "Motion Pictures in the School" tell you more about this subject. Mail the coupon for your copy.

THE DEVRY CORPORATION 1286 Marianna St.
CHICAGO, ILL.

The DeVry Corporation,
1286 Marianna St., Chicago, Ill.

Gentlemen:

Please send me a copy of your booklet "Motion Pictures in the School." It is understood this places me under no obligation.

Name.....
School.....
Address.....
City..... State.....

NATIONAL DUSTLESS CRAYONS

are truly
Crayons of Character



Free of grit from tip to tip NATIONAL CRAYONS respond perfectly to every stroke.

Being uniform in strength, every piece of NATIONAL CRAYON will withstand a firm grip of the fingers without danger of breaking or crumbling.

The dustless feature, combined with uniformity in all other respects, makes NATIONAL the ideal crayon for the classroom.

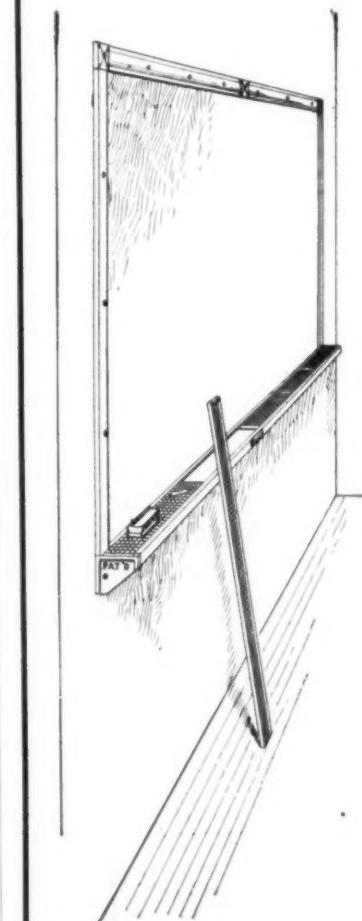
Your regular school supply dealer
can serve you. If not, write direct.



THE NATIONAL CRAYON CO.
West Chester Pa.



Dudfield's System of Dustless All Metal Crayon Troughs and Metal Blackboard Trim Give Complete Satisfaction



ALBUQUERQUE, NEW MEXICO
GEORGE E. TROST
M. V. ANDREW BLDG.

OFFICE OF
TROST & TROST
ARCHITECTS &
ENGINEERS

DETROIT, MICHIGAN
TROST & TROST
ARCHITECTS &
ENGINEERS

LIBRARY, TEXAS

January 15, 1923.

Dudfield Manufacturing Co.,
Liberty, Mo.

Gentlemen:

Replies to your inquiry regarding your "ALL-METAL" Dustless Crayon Trough, it is a pleasure to advise that we have used this trough in the Austin and Morehead Schools, this city, and in three schools for Albuquerque, New Mexico, all of which is giving the most complete satisfaction.

Owing to its substantial construction and sanitary features, we consider it the best thing of its kind on the market. We have it specified for several schools now under construction, and intend to use it in all of our future school work.

Wishing you a merited success, we are,

Yours very truly,

Trost & Trost,

By Geo. E. Trost.

Samples and description in detail
will be furnished upon request.

Dudfield Manufacturing Co.

Liberty, Mo.

FOWLER'S UTILITY SCHOOL PAPERS

Include

COLORED CONSTRUCTION PAPERS

Art Supervisors and teachers find this line of papers suitable for the many problems of construction work, covers, mounting, as well as for pencil, charcoal, crayon, or water color work. Offered in a variety of colors.

COLORED POSTER PAPERS

Consisting of the primary, binary, standard hues, six greyed colors, neutral grey and black—a palette of colors in paper made expressly for the convenient and accurate study of color and the various applications.

School Writing
Manila Drawing
Art Bogs

Cross Section
White Drawing and
Water Color

Mimeograph
Typewriting
Pencil Practice

*Samples furnished on request
Sold through the leading School Supply Jobbers*

W. A. FOWLER PAPER CO.
343 So. Dearborn St. Chicago

(Concluded from Page 148)

report of the Foundation, his conviction that the enormous expense of the American public school system endangered the very life of that system. Dr. Pritchett's warning is allied with his statement that 'the rise in the cost of education has come in large measure out of a transformation of the notion as to what a school is for.' The statement made about education, sex and sociology, represents something so vast, so vague and so significant that every man takes pleasure in reading his own meaning into it.

"It seems, from the figures submitted by Dr. Pritchett, that the cost of public schools increased from \$410,000,000 in 1890 to \$1,000,000,000 in 1920, and that the cost of salaries of teachers has increased from \$96,000,000 to \$436,000,000. Enrollment in the public elementary schools has increased from 13,000,000 to 22,000,000 in that period, while enrollment in high schools has increased from 200,000 to 2,000,000.

"As a result, municipalities and states are finding the rising cost of their educational budget a serious problem. The question how to finance public education in face of the other great demands made upon these communities and states has become, as Dr. Pritchett puts it, acute. He claims a different educational theory is in large part responsible for the present situation.

"On the other hand, John J. Tigert, United States Commissioner of Education, William L. Ettinger, Superintendent of Schools, New York City, as well as Peter M. Mortenson, Superintendent of schools of Chicago, agree in thinking at the present time that we do not spend enough for education. 'While the American people,' Mr. Tigert says, 'are spending annually \$22,000,000,000 on luxuries, certainly they can

afford to spend more than \$1,000,000,000 for schools.'

Proper Housing for Children.

"With these divergent views among the great students of educational matters in this land, it can be readily seen that the problem is a most difficult one for any board of education. The educational ship will continue to be buffeted about by the winds that blow. The various school boards have been moved by this and that influence. Different superintendents have held different ideas in regard to education. Organizations within the system and organizations without have advised this course and that course. Expediency rather than science has too often been the rule. Most of these organizations I am convinced have been well meaning, but unacquainted with the fundamental facts, without which no proper conclusion could be arrived at.

"The only way in which these questions can be met, in my humble opinion, is by means of a well-worked-out plan. No proper plans and decisions can be made without all of the fundamental facts concerning the various factors. I have been associated long enough with the school system to be convinced that sufficient facts have not been available, and that careful, scientific studies have not been adequate for scientific conclusions.

"To illustrate, for example take the so-called platoon system. Fifty-four cities and towns in the United States have adopted it for their grammar grades. If adopted in Chicago it would save this city in the next few years more than \$1,000,000,000 in new buildings. Personally, I am sold to the idea, but what would happen if the board of education decided to inaugurate it? Certain educators in and out of the system would rise up, and it would be impossible to put it into effect. The people

"And now my friends a word of cheer"

Why should I tell you of the superiority of Vul-Cot Waste Baskets? Why should I reiterate that we have made them strong, tough and wear-withstanding—that they are so good to look at that five million business men and women have them in their offices?

These things you already know, or should by this time.

But, take this thought of cheer away with you. It is not a new one—old news, but mighty good:

The Vul-Cot is absolutely guaranteed to last five years. No reservations are made to this guarantee. And of course, if we can guarantee it to last that long it is built to give rough and ready service for a lifetime.

*All school supply houses
and dealers carry Vul-Cots.*

NATIONAL VULCANIZED FIBRE CO.
Wilmington, Del.



VUL-COT
GUARANTEED 5 YEARS

would not understand what was meant by it. Public opinion might make it impossible for the board to proceed, and the \$1,000,000,000 which I am convinced could be saved to the taxpayers this way, would not be saved. On the other hand, if this thing could first be projected by the School Plan Commission and thoroughly explained to the people of Chicago, it would at least have an opportunity for a fair hearing.

"I am convinced the same thing could and must happen in the educational field if our children are going to be properly housed and educated, and at the same time have the taxpayers satisfied with the amount of money paid for education. Furthermore, I am convinced that the proper plan cannot be made by any political body, such as the board of education."

HANDLING ABSENCES AND TARDINESS IN HIGH SCHOOL.

(Concluded from Page 57)

which are so essential to the esprit de corps of any educational institution. (3) It reduces absence and tardiness, both of which are essential to effective school work. (4) It makes for better discipline because the students realize that those who are responsible for the administration of the school are on the job and that each case of absence, tardiness, cutting, or hookey will be promptly and impartially dealt with in the office. (5) The teachers know definitely what students are permitted to make up work for credit. (6) By mailing the written excuses back to the parent or guardian at stated intervals, the problem of the forged excuse is practically solved. (7) And last but not least, students are taught respect for authority which is so essential even in such a democratic institution as the American high school.

SCHOOL FIRES

are not so numerous since these institutions have been equipping with the all steel



WASTE BASKET

The only basket guaranteed
— FOR 10 YEARS —

FIREPROOF — DURABLE — SANITARY



Ask your local dealer or supply house to show them to you,

or

Write us for catalogue.

ERIE ART METAL CO.
ERIE, PA.

TEXTBOOK SELECTION.

(Concluded from Page 48)

1. Does it meet the real needs of the group you are to teach?
Completely.
Very well.
Fairly well.
Meager or out of date.
2. Is the purpose of the author indicated in the preface?
Very clear.
Clearly.
Partially.
Vague.
3. Is your purpose consistent with that of the author?
Exactly.
In most respects.
Partially.
Opposed.
4. Is the content arranged in good sequence?
Excellent.
Good.
Fair.
Poor.
5. Does the sequence meet your needs?
Very well.
About.
Partially.
No.
6. Subject Matter.
Excellent.
Good.
Fair.
Poor.
7. Number of pages.
Excessive padded.
Sufficient for unit course.
Too brief.
8. Is the space devoted to the various topics in proportion to their importance?
Very well proportioned.
Tendency to emphasize the author's interests and experience.
Poorly proportioned. Important topics not given full consideration.
9. Is the language within the comprehension of those who are to use it?

Very readily comprehended.
Readily comprehended.
Confusing at places.
Lacks clearness.

10. Illustrations.

- A. Number.
Large number.
Well illustrated.
Lacks sufficient illustration.
Practically no illustration.
- B. Kind.
Few well selected. Aids understanding.
Show discrimination.
Fairly representative.
Does not show careful selection.

11. Graphical representation, charts, diagrams, maps, graphs.

- Numerous — Well selected, well arranged with notes of explanation.
Very well selected.
A lack of such materials which would assist the student.
Poorly selected.

12. Aids in use of text.

- A. Index.
Well arranged cross index.
Index lacks cross references.
Briefly indexed or no index.
- B. Table of contents.
Very complete.
Rather brief; insufficient explanation.
Too brief; difficult to locate topics.
- C. Suggestions as to use.
1. Teacher's manual.
Well organized for teacher's use.
General in scope; requires considerable modification.
2. Student's guide.
Clear explanations; concrete examples; glossary.
Specific directions; laboratory manual or outline available.
Lacks specific application; no supplementary material available.
- D. References.
Number of well selected references following each chapter.

Economize! *Install U. S. Inkwells*

They Are
NOISELESS DUST-PROOF UNIVERSAL



School officials who want real economy plus service and satisfaction are equipping the desks in their schools with U. S. INKWELLS.

There are no hinges to break, corks to lose, they operate silently, easy to clean and keep clean, are non-evaporating and neat in appearance.

U. S. INKWELLS have been pronounced the most appropriate, substantial and satisfactory inkwells for school use.

Write for sample

U. S. Inkwell Company, Inc.

Manufacturers
DES MOINES

IOWA

Few references and not carefully selected.
No references given.

- E. Questions for discussion.
Stimulating; demanding original work.
For review only.
Poor.

IV. Use of Text.

- a. Supplementary text—Why?
- b. Reference text—How is it to be used?
- c. Basic text—Why?
- d. Class, grade or type of students to which best adapted. Why?
- e. Does the text cover a whole field or only a partial field? If the latter—what part?
- f. Is it well adapted to your course of study? Explain.
- g. Would it be inadvisable to use this text? Why?
- h. Would you advise that students purchase this book for their library? Why?

V. Special Consideration.

Is the approach and organization of the book as a whole logical, or does it take into consideration "learning difficulties?"

This material is presented only as a step in advance of the usual unreflective method of book selection. A considerable amount of research has been done in regard to the best size of type, the most scientific length of line, etc. These are problems which will be solved by the publishers and need not concern the rank and file of teachers.

Mr. Russell J. Mourer of Tabor, Ia., has been elected superintendent of the Thurman Consolidated School at Thurman.

Mr. C. B. Vernon of Frankfort, Kans., has been elected superintendent of schools at Vinton, Ia., to succeed K. D. Miller resigned. Mr. Vernon is a graduate of Baker University, Kansas, and holds a degree from Columbia University. He has been engaged in school work ten years, three years of which were spent at Frankfort.

Mr. A. L. Lewis has been elected superintendent of schools at Pecatonica, Ill.

Supt. J. B. Richey of McKeesport, Pa., on June 4th, celebrated the 21st anniversary of his connection with the schools.



Do Your Pupils Sharpen Pencils This Way?

Sharp-pointed pencils cannot be obtained when sharpening with a knife. Expertness is required to produce even a fair point; injury is liable to result if the knife slips; floor and desks are littered with shavings and graphite; confusion results in the borrowing by pupils of another's knife; and considerable, valuable time is wasted.

Increase Efficiency By Installing Apsco Pencil Sharpeners.

Thousands of schools are now using the clean, efficient, time-saving method of sharpening pencils—economically installing one or more models of the Apsco Line of Pencil Sharpeners. But a fraction of a minute is required to sharpen the pencil, and anyone can sharpen pencils with an Apsco Pencil Sharpener—it is so simple.

Pupils benefit when Apsco Pencil Sharpeners are installed, for they easily obtain a fine, sharp point on any pencil; ease in expressing on paper hard-to-remember thoughts and knowledge is facilitated; correctness in holding of the writing tool is assured; time is saved; writing improved; and no soiling of person or clothing.

Features of The Apsco Line

The Apsco Line of Pencil Sharpeners is the only line consisting of eleven different models, enabling every school to select the particular model best meeting their needs. Each is of the best material and type of workmanship at its price—ALL embody exclusive Apsco features, among which are the durable, solid steel twin milling cutters.

Let Us Send You "The Pencils and Crayons Your Pupils Use."

This interesting booklet, just off the press, has been prepared especially for school executives. It describes the entire Apsco Line and in addition presents helpful suggestions and thoughts you will appreciate. Why not write for your copy—NOW?

Automatic Pencil Sharpener Co
58 E. Washington St. CHICAGO

**The Apsco Line
Of Pencil Sharpeners**

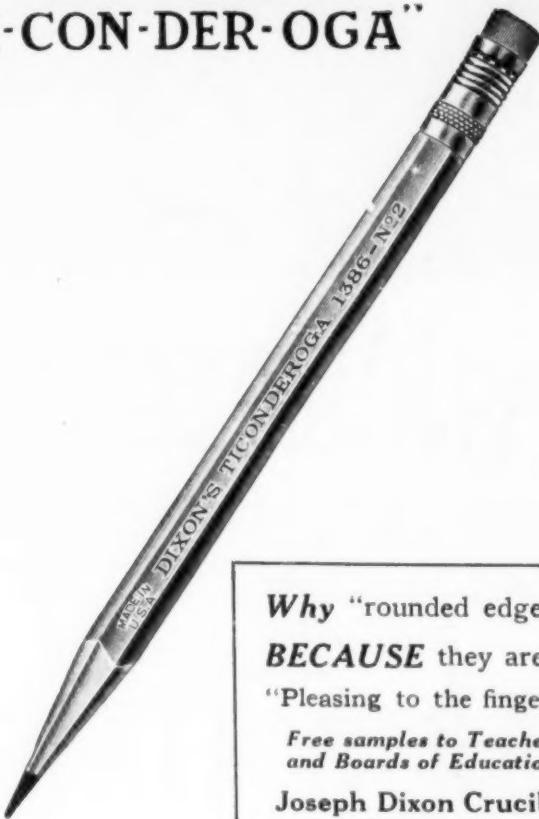


—or
this way?

Do not let your pupils contend with blunt-pointed pencils next year when at so little cost you can assure them sharp-pointed pencils by installing Apsco Pencil Sharpeners.

When purchasing pencil sharpeners make certain they are Apsco-manufactured by the Automatic Pencil Sharpener Company for they cost no more.

DIXON "TI-CON-DER-OGA"



Why "rounded edges"?

BECAUSE they are
"Pleasing to the fingers!"

*Free samples to Teachers
and Boards of Education.*

**Joseph Dixon Crucible
Company**
Pencil Dept. 31 J.,
Jersey City, N. J.

Spencerian School Pens

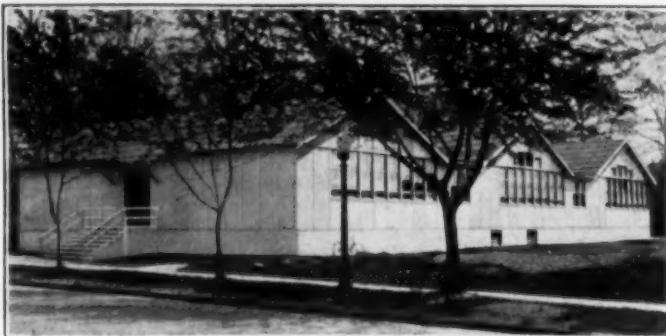
Spencerian Steel Pens are the best for schoolroom use because they outwear any two ordinary pens. They retain their smooth writing points longer against the misuse and hard wear that children put upon pens. Children become better writers quickly with these good tools.

For more than half a century Spencerian Steel Pens have been the standard for school pens. Superintendents and teachers may obtain sample pens on request. Supplies can be obtained from the trade. Write us for samples.

SPENCERIAN PEN COMPANY
349 Broadway, New York

No. 1—College, fine point; double elastic.
No. 2—Counting House, excellent for bookkeeping.
No. 5—School, fine point; semi-elastic.
No. 47—Intermediate, medium point; stiff action.





"American" Portable Schools

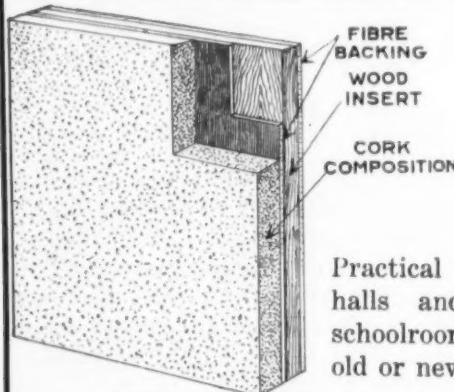
American Portable Schools have demonstrated to customers in forty states over a period of 20 years that they are comfortable in winter and summer, durable and portable.

80 per cent of our orders come from old customers.

We offer Prompt Shipment from stock. Freight cars move from Seattle to Chicago in ten days. Write or wire us for catalog and prices f.o.b. your station.

AMERICAN PORTABLE HOUSE CO.

601-611 Alaska St.
Seattle, Wash.
Established 1898



"STANDARD" CORK Bulletin Board THE BEST BY ANY TEST

Practical for display purposes in halls and over blackboards in schoolrooms. Easily installed in old or new buildings.

USEFUL, ATTRACTIVE and PERMANENT

We Manufacture All Sizes. Write for Sample.

STANDARD BLACKBOARD CO.
Cor. Second and Walnut Sts.

ST. LOUIS, MO.



Bossert Schools

Are Warm in Winter and Cool in Summer

We are equipped to furnish any size building on short notice. Prices of same depend on requirements and State Laws—but in every case are the lowest for quality of material supplied. Remember, this is not a cut lumber proposition, and the cost of erecting is a very small item. While not essential, as any unskilled labor can do it, we will, if you desire, arrange to erect all buildings. Buildings can be taken down and re-erected any number of times without marring a single feature.

We have made portable school houses for other people for over 25 years. Now you can buy Bossert School Houses with all our new patents and improvements direct from us and save money for your school board.

Write us full requirements and we will send details of cost of building completely erected.

LOUIS BOSSERT & SONS, Inc.
Builders of School Houses for over 25 years.
1323 Grand Street Brooklyn, N. Y.

Squires Boston Inkwell

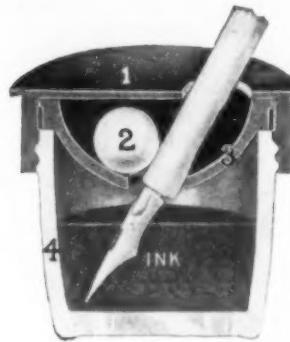
We now manufacture the Boston Inkwell. It fits a 1 27/32 inch hole. Has a Hard Rubber Top with a slide over the pen hole. The glass has a ledge below the thread to keep the ink from spilling if it should come loose from the top.

Our price is right.

No. 14 Self-Closing Inkwell. Has a Hard Rubber Top and fits a 2 inch hole. It is the best inkwell on the market.



No. 3 or Chicago Inkwell. We furnish a one lug or the three lug glass for it. Nickel plated.



Write for Catalogue, Prices and Samples.

SQUIRES INKWELL CO.

713 Penn Ave.

PITTSBURGH, PA.

The Norton Liquid Door Closer with Hold-Open Arm

Use The Norton Liquid Door Closer with Hold-Open Arms and do away with door stop on bottom of door.



WHY IS THE NORTON CLOSER WITH HOLD-OPEN ARMS THE BEST SUITED FOR SCHOOLHOUSE WORK?

1st. The doors are closed with a uniform speed which gives the pupils a chance to go through a door without getting caught or injured.

2nd. Having two speeds—the speed at the latch can be set for absolute quiet—no latch necessary.

3rd. The Hold-Open Device connected with the arm of the Door Closer is automatic, a child can operate it—just a push or pull on the door is all there is to do to it. Does away with door stop, hook or strap to hold door open. Every schoolroom should have one.

Approved by the National Board of Fire Underwriters Laboratories
THE NORTON DOOR CLOSER CO., 2900-2918 N. Western Ave., Chicago

THE ARMSTRONG COMPANY SECTIONAL SCHOOL BUILDINGS



OUR PLANS APPROVED BY YOUR SCHOOL BOARD

AND MEET EVERY REQUIREMENT OF YOUR BUILDING CODE

The ARMSTRONG SECTIONAL SCHOOL BUILDINGS are complete in every detail, having double floors, double side walls and ceilings. With every modern convenience makes them the best Portable School Buildings on the market today. With the perfect lighting and ventilation, they are without equal. Our buildings can be taken down and moved to another location without mutilating in the least any of the parts. We can prove it. If you write us what you desire, we will send you full details. We are specialists in Sectional School construction.

THE ARMSTRONG COMPANY,

P. O., 401, ITHACA, NEW YORK

STANDARDIZE ON SUPPLIES THAT BEAR THE ROBERTSON TRADE MARKS

KOTAR

The Wonderful "Bactericide" and Cleaner for Schools. Great for floors. Kotar reaches and removes the dirt, germs and vermin. Kotar solution should be used regularly to flush the toilet. Used in solution, so its cost is small.

Robertson's Original Twentieth Century Soap has no equal. It is unsurpassed for cleaning floors, woodwork, furniture and finished surfaces, also ideal



for cleaning blackboards. Pure vegetable oils only are used in its manufacture.

Robertson's Genuine Bristol Floor Brushes have kept the floors of thousands of classrooms clean. Every brush bearing the Diamond Brand trade mark is guaranteed to be as represented.



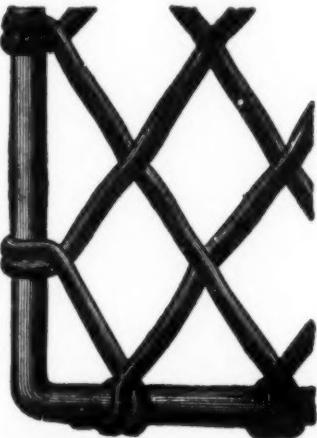
We are headquarters for all School Supplies, including Liquid Soaps, Paper Towels, Toilet Paper, Mops, Brushes, Paper Towel and Toilet Paper Fixtures. Get our prices.

Theo. B. Robertson Products Co., Inc.

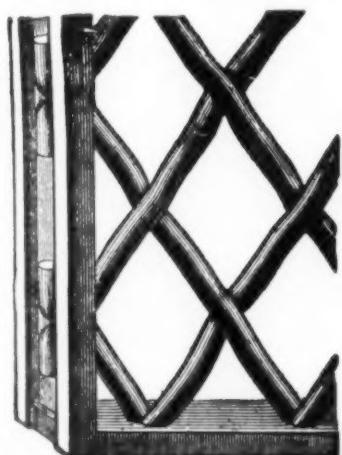
Member, National School Supply Association
700-704 W. DIVISION ST. CHICAGO, ILLINOIS

BADGER WIRE WINDOW GUARDS

Installed in your school means—permanent protection against breakage of school windows and because of their rigid construction—real economy.



BUY WIRE WINDOW GUARDS
INSTEAD OF
WINDOW GLASS



BADGER WIRE WINDOW GUARDS are made to order in any size or shape to fit the window. The illustrations show the BADGER WIRE WINDOW GUARDS with Round and Channel frames. They are easily installed.

*Order through your
School Supply Jobber.*

BADGER WIRE AND IRON WORKS

Cleveland and 25th Aves.
MILWAUKEE, WIS.



**You Receive
Full Value
When You
Buy**

FLAGS

MADE OF

STERLING and DEFIANCE

All Wool Double Warp
Bunting

Two Ply Cotton
Bunting

THE FLAGS THAT GIVE SERVICE

SOLD BY DEALERS EVERYWHERE

Manufactured only by

ANNIN & CO.

Largest Flag House in the World

**99-101 FULTON STREET
NEW YORK, N. Y.**



M & M

**PORTABLE
SCHOOLS
ARE STANDARD**

Ask for Catalog

Mershon & Morley Company - Saginaw, Michigan

Established 1898

It Took Him a Half Day To Find It YOU CAN FIND IT IN HALF A MINUTE

If you use Roberts & Meck's
RECORD FORMS, SCHOOL RECORDS
of all kinds. Samples and prices on application.

ROBERTS & MECK
HARRISBURG, PA.

OUR FREE SERVICE in teaching the Mechanics and Pedagogy of Palmer Method Penmanship is still offered to all teachers whose pupils are provided with individual copies of our manual. OTHER TEACHERS may enroll for the complete correspondence course upon payment of the small fee of ten dollars.

OUR THIRTY VISITING INSTRUCTORS cover the entire United States and their services are still free to all schools having Palmer Penmanship adopted.

THE PALMER METHOD PLAN when followed exactly leads to enduring handwriting, which becomes a big asset in school, business and social life.

PALMER METHOD PENMANSHIP is written at commercial speed and is as plain as print. Thus, it conserves the time of the writer and the time of the reader. Palmer method Penmanship compels healthful posture while writing, thus conserving health and vision.

PALMER METHOD SPELLERS all in Palmer Method Penmanship are attracting more and more the attention of modern educators. Follow immediately the Palmer Method Penmanship lesson with the Palmer Method Spelling lesson, and the results in both subjects will be highly gratifying.

PALMER METHOD STANDARDIZED PENMANSHIP SUPPLIES are selling in very greatly increased quantities because they offer the greatest value.

THE A. N. PALMER COMPANY

30 Irving Place, New York City. 2128 Calumet Ave., Chicago. Pittock Bldg., Portland, Ore.

Sanitary Equipment for Schools

SMITH SYSTEM of HEATING and VENTILATION

The Best Solution for the Heating and Ventilating Problem for Town and Country Schools, Portable Buildings and Annexes.

SMITH SANITARY CHEMICAL TOILET

A Sanitary Odorless Toilet for use where no Water or Sewer are available.

SMITH SANITARY BUBLER FOUNTAIN

A Fountain of Health. It gives a Cool, Clean Drink for every Child.

SMITH SYSTEM HEATING COMPANY

2422 University Ave. S.E., Minneapolis, Minn.

AMESBURY HIGH SCHOOL

BUILDING COMMITTEE

AUGUSTUS N PARRY CHAIRMAN

MARTIN F CONNELLY SECRETARY WILLIAM E BIDDLE

GEORGE L BRIGGS

ARTHUR J ANDERSON

GEORGE A MERRILL

EARL M NELSON

PRESCOTT & SIDEBOTTOM ARCHITECTS

KENNEDY & PETERSON CONSTRUCTION CO BUILDERS

THIS BUILDING ERECTED 1917

HONOR ROLLS—MEMORIAL TABLETS—IN BRONZE
MODELED, CAST AND FINISHED BY
ALBERT RUSSELL AND SONS CO.
125 MERRIMACK ST. NEWBURYPORT, MASS.

A Square Cut and A Clean Edge



INGENTO CUTTERS

Keen cutting **INGENTO TRIMMERS** are preferred by teachers and pupils. Save time and strength. For cutting paper, cardboard and light metal.

PRICES: 8½ inch blade \$2.50 12½ inch blade \$4.75
10½ " " 3.00 15 " " 11.00

Ingento Cutters are sold by leading School Supply Houses.
MFG. BY **Burke & James Inc.** 240 E ONTARIO ST.
CHICAGO



PURITY STRAWS

Are you serving milk to the children in your school?

Scientific records show added mental and physical efficiency where this has been tried.

Serve milk in half pint bottles and insert a Purity Straw through bottle cap. Sanitary and economical. No washing of glasses and no breakage. Children cannot gulp milk when served in this way. Purity Straws are specially made for this use. So strong they will not break if bent or crushed nor soften after longest exposure. Sample box and information on request.

COE MANUFACTURING CO.
35 S. Warren St.,
NEW YORK CITY

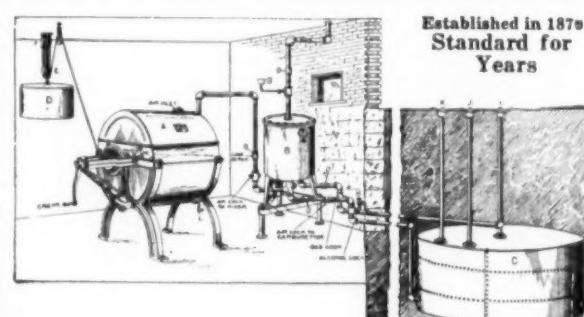
349 Words a Minute in Isaac Pitman Shorthand

Nathan Behrin smashes his own record of 322 words a minute and also wins NEW YORK STATE CHAMPIONSHIP at speeds of 250 and 300 words a minute. This contest was open to writers of all systems.

New York State Championship	
NAME	SYSTEM
Nathan Behrin	Pitman
John F. Daly	Pitman
<i>20 Minute Contest</i>	
NAME	SYSTEM
Nathan Behrin	Pitman
John F. Daly	Pitman
<i>350 Words a minute</i>	
NAME	SYSTEM
Nathan Behrin	Pitman
Neale Ransom	Pitman

Pitman shorthand is used by all Congressional and more than 90 p. c. of all court reporters. It is taught in over 93 p. c. of the public schools of New York. Send for copy of "Pitman's Shorthand in One Hour" and particulars of a free correspondence course for teachers.

ISAAC PITMAN & SONS
2 WEST 45th STREET NEW YORK CITY



Established in 1878 This Machine Will Standard for Automatically Years

GAS

For your laboratories, Domestic Science Department. In use in hundreds of educational institutions throughout the country.

Write to us for a list of colleges and high schools using our machine.

Illustrated Catalogue Will Be Sent on Request.

MATTHEWS GAS MACHINE CO.

6 E. Lake Street

CHICAGO, ILLINOIS

PRINTING SERVICE

TO SCHOOLS

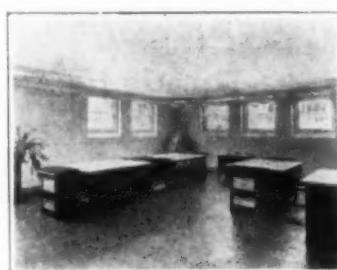
The Cannon Printing Co. is an organization with the knowledge, equipment and experience to render efficient, reliable and satisfactory service to schools.

Quality in set up and printing of Stationery, Forms and Blanks, Accounting Forms, Reports, High School Year Books, Bulletins and School Papers assured, together with prompt delivery at moderate prices. Consider these factors when ordering printing.

Consult with us about your school printing needs and ask for estimates. This service does not place you under any obligation.

CANNON PRINTING COMPANY

131-133-135 Michigan St., Milwaukee, Wis.



Get Acquainted
with the new Group Arrangement for the Domestic Science room.

- Regular stoves
- Regular ovens for baking
- Table tops free from all burners
- No additional range necessary

Far better results are obtainable with these new special domestic science gas stoves. The old style hot plate cannot be compared with it.

Full particulars furnished on request

FREEPOR GAS MACHINE CO. Freeport, Ill.

Bruce's School Architecture Library

A Reliable Reference and Guide to Better Schoolhouse Planning and Construction

Descriptive literature and price furnished on request

THE BRUCE PUBLISHING COMPANY
207 Montgomery Bldg. Milwaukee, Wis.

ENGRAVING CRAFTSMANSHIP



"YOUR STORY IN PICTURE LEAVES NOTHING UNTOLD"

Paramount in designing and engraving are workmanship and service at conservative prices. Premier Craftsmanship assures you of these together with complete satisfaction.

PREMIER ENGRAVING CO.

DESIGNERS MILWAUKEE ENGRAVERS WISCONSIN



616 WINNEBAGO STREET

More Money for Busy Folks

WE have an opportunity for you to make some extra money. If you expect to attend summer school, teachers' institute or teachers' meetings of any kind you will be surprised to find how many opportunities will present themselves for you to take subscriptions for the PROGRESSIVE TEACHER. You don't need previous experience and profits begin at once. But if you'll SEND THE COUPON, we will tell you all about it.

The Progressive Teacher,
Morristown, Tennessee

Gentlemen: I am interested in representing PROGRESSIVE TEACHER the coming season. Send without obligation to me your proposition. If I accept your agency, I desire to work the following territory (name of summer school or county):

Name.....
Address.....
City..... State.....



TEACHER AGENCIES



Our Reputation is National
Our Service Unexcelled
Positions Kindergarten to University Presidents
ROCKY MT. TEACHERS' AGENCY
410 U.S.NAT. BANK BLDG. DENVER, COLO.
WM. RUFFER, Ph. D. Manager

COME TO HEADQUARTERS

Free Registration
BRANCH OFFICES:

Portland, Oregon, N. W. Bank Bldg.
Minneapolis, Minn., Lumber Exchange
Kansas City, Mo. 230 Rialto Bldg.,

COLLEGE GRADUATES Recommended Exclusively
—except in vocational fields. No elementary school positions. Any subject
from high school up. Leading bureau for teachers of Commercial, Industrial
and Physical Education. 20th year. Covers all states. Tell us your needs.

SPECIALISTS'
EDUCATIONAL BUREAU

ROBERT A. GRANT, Pres.,
Odeon Bldg., St. Louis, Mo.



FISK

Associated Fisk Agencies
in Principal Cities.

TEACHERS' AGENCY
1020 McGEE ST.
KANSAS CITY, MO.
J. A. DEVLIN, MANAGER

THE SOUTHEASTERN TEACHERS' AGENCY

Elk Park, N. C.

Seven Years Service to Boards and Teachers
Free Enrollment.

SOUTHWESTERN SCHOOL SERVICE BUREAU

W. A. Bynum, Prop. and Mgr.

Abilene, — Texas.

The wonderful territory over which this agency operates attracts to us thousands of the best teachers of the land, representing every state and institution. Employers of teachers are respectfully requested to notify us of their vacancies. No charges whatever to authorities. We depend for our success solely upon using discriminating judgment and the merits of our candidates. 85% of our teachers make good.

2 OF THE 15 VARIETIES



**STEELE'S
DUCK
SHADES**



Write for Prices, Catalog and Free Sample

OLIVER C. STEELE MFG. CO.
SPICELAND, IND.

SILICATE VENEER PLATE
BLACK BOARD

Why don't you purchase the best goods for your school? Our revolving blackboards and roll blackboards have been in constant use in all the Public Schools in New York, and the principal cities for thirty-six years, which is a sufficient guarantee. Send for our illustrated catalog and discount sheet and compare prices with other manufacturers.

N. Y. Silicate Book Slate Co.
20-22-24 Vesey Street
NEW YORK



CLASSIFIED WANTS

The rate for Classified Advertisements is 10 cents per word per insertion,
payable in advance. Forms close the 15th preceding the date of issue.

PICTURES

The Copley Prints for school walls have the very highest endorsements. See Illustrated Catalogue. Curtis & Cameron, 2 Harcourt Street, Boston, Mass.

VITROLITE

Samples—Every School Trustee, Secretary and Superintendent, owes it to himself to know something about Vitrolite. Used to splendid advantage in toilet rooms, Domestic Science Departments and in connection with lunch room equipment. Sample with details sent upon request. Address the Vitrolite Co., Chamber of Commerce Bldg., Chicago, Ill.

WANTED

Architectural Draftsmen Wanted—Two first class experienced Architectural Senior Draftsmen for immediate engagement. Frank L. Packard, Architect, 16 East Broad Street, Columbus, Ohio.

INK

"Cho-Seco" Ink Pellets produce better ink for less money. Never corrode. Now the favorite in many schools in many States. Sample postpaid six cents. Cho-Seco Pellet Co., Albany, N. Y.

VICTOR Portable STEREOPTICON

*The
PERFECT PROJECTOR
for every need*

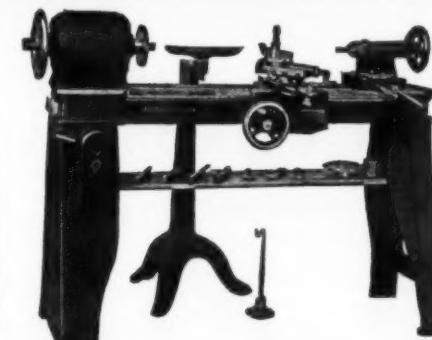
**SHIPPED ON TRIAL
SPECIAL EASY TERMS**

*Hundreds of illustrated
lectures for rent.*



WRITE FOR
INFORMATION

VICTOR ANIMATOGRAPH CO. INC.
141 VICTOR BLDG. DAVENPORT IOWA.



If In Doubt
consult the School Authorities of Buffalo, Jersey City, Memphis, San Francisco, Winnipeg, Rochester and a hundred other cities we could name if space permitted and learn what they think of

American Woodworking Machinery for Manual Training Work.
Every School Board should have our catalog on file.
Let us send you a copy.

American Wood Working Machinery Co.
591 Lyell Avenue, Rochester, N. Y.

TEACHER AGENCIES

PROFESSIONAL PERSONNEL SERVICE

Our employment work consists of administrative and departmental work of all kinds in public and private schools, colleges and universities—including superintendencies, principalships, supervisorships, also such positions as business managers for schools, purchasing agents, registrars, accountants, secretaries, cafeteria directors, trained nurses, etc. This is a professional personnel bureau, with special facilities for service to school executives and school boards. The whole endeavor of EDUCATION SERVICE is service. It is organized for service, not profit.

EDUCATION SERVICE operates the Fisk Teachers Agency of Chicago, and National Teachers Agency of Washington, New York, Boston, Chicago and Evanston, and the American College Bureau.

EDUCATION SERVICE

Ernest E. Olip, Director

Steger Building,
Chicago



Security Bldg.,
Evanston

1254 Amsterdam
Ave., New York

14 Beacon St.,
Boston

Southern Bldg.,
Washington



Three Classes of Teachers Who Should Enroll in Our Agency

- 1—Those who desire a better locality.
- 2—Those who want a better salary.
- 3—Those who possess average or more than average ability. Write Manager E. A. Freeman for booklet.

EDUCATIONAL SERVICE BUREAU
Handicraft Bldg., 89 So. Tenth St.
Minneapolis, Minnesota

TEACHERS WANTED

For Schools and College—Every day of the year
NATIONAL TEACHERS AGENCY, INC.

D. H. COOK, Gen. Mgr. HOME OFFICE—Philadelphia, Pa.

BRANCH OFFICES

Pittsburgh, Pa.; Indianapolis, Ind.; Syracuse, N. Y.; Northampton, Mass. No charge to employers—No charge to candidates till elected. Positions waiting—correspondence confidential.

LET US BE THE CONNECTING LINK AND SOLVE YOUR BUSINESS WORRIES

We Have the
TEACHERS

We Have the
SCHOOLS

CENTRAL EDUCATIONAL BUREAU

Metropolitan Bldg., Saint Louis, Mo.

Brewer Teachers' Agency

Suite 50-51, Auditorium Building, Chicago

The Oldest National Agency—Founded 1882 by Orville Brewer

Forty Years of Honorable and Efficient Service

We have the teachers—Let us know your needs

The day of the teacher is coming! Our purpose is to hasten its arrival.
TEACHERS—SUPERINTENDENTS—PROFESSORS
Have you registered with us? . . . Have you listed your vacancies?
Our Registration Bureau is ABSOLUTELY FREE.
Let us help you:—Write us. Wire us. Phone us. Come to see us. Our Motto:
"Service First." Our address:
SOUTHERN SCHOOL-BOOK DEPOSITORY, INC.
Distributors of School and College text books.
Atlanta, Georgia.

The Pratt Teachers' Agency

No. 70 FIFTH AVENUE, NEW YORK

RECEIVES calls at all seasons for college and normal graduates, specialists, and other teachers in colleges, public and private schools, in all parts of the country. Advises parents about schools.

WM. O. PRATT, Manager

PARKER TEACHERS' AGENCY

Twenty Years of Real Service to School Boards

12 South Carroll Street
MADISON, WISCONSIN

SOUTHERN TEACHERS' AGENCY

W. H. JONES, Manager

COVERS THE SOUTH COLUMBIA, S. C. CHATTANOOGA, TENN. RICHMOND, VA.

INTERSTATE TEACHERS' BUREAU,

147 WHITEHALL ST.,

ATLANTA, GA.

Organized 1901. Prompt and effective service.

Member, National Association of Teachers' Agencies.

We Specialize in Brains

Character, Personality, Teaching Power and Service. By advertising more widely than any other Agency, and by visiting State and District meetings, schools and colleges, from Dakota and Minnesota to Texas and Oklahoma, we have built up the largest SELECT LIST of LIVE teachers ever assembled. Our tenth year of recommending only when asked to do so by employers. Owing to our professional standards most of the Higher Institutions as well as the best Secondary schools in forty-four States and three foreign countries used our service the past season. Fifteen hundred square feet of office space, with every known equipment for doing efficient work, INCLUDING A FINDEX BUILT TO ORDER, enables us to fill vacancies from Kindergarten to University with teachers who have been tested, investigated, and, in many cases personally interviewed by our representatives direct.

A Distinct Service for Educators who appreciate Ethical Standards.

THE WESTERN REFERENCE & BOND ASSOCIATION
Department of Education, 499 Gates Bldg.
KANSAS CITY, MO.

The H. D. Yates Teachers' Bureau

728-30 Stahlman Building, Nashville, Tennessee

PERSONAL SERVICE AND DIRECT RECOMMENDATIONS

"THE AGENCY OF QUICK SERVICE AND EFFICIENCY"

WESTERN TEACHERS' EXCHANGE

DENVER, COLORADO CHICAGO, ILLINOIS MINNEAPOLIS, MINNESOTA BERKELEY, CALIFORNIA

Gas & Electric Building Peoples Gas Building The Plymouth Building Berkeley Bank Building

Free Enrollment—All Offices
We Render Efficient Service to School Boards and Teachers
The Only Agency That Maintains Educational Men Constantly in the Field

Albany Teachers' Agency, Inc.

81 CHAPEL STREET, ALBANY, N. Y.

Provides Schools and Colleges with Competent Teachers.

Assists Teachers in Securing Positions.

WILLARD W. ANDREWS, President

F. WAYLAND BAILEY, Secretary

THE WOOD TEACHERS' AGENCY, Blytheville, Ark.

Operates locally and nationally. We offer free service to employing officials. Correspondence invited from those seeking teachers or teaching positions.

Schermerhorn Teachers' Agency

Established 1855

CHARLES W. MULFORD, Prop.

366 Fifth Ave., between 34th and 35th Streets, NEW YORK

Branch Office: 1836 Euclid Ave., Cleveland, Ohio.

A Superior Agency for Superior People. We Register Only Reliable Candidates. Services Free to School Officials.

THE ADAMS-SMITH TEACHERS' AGENCY

Including The McCullough Teachers' Agency

J. PORTER ADAMS, Manager

224 South Michigan Avenue, Chicago, Illinois

Send for registration blank

Choice Positions Filled Every Month of the Year

In Every Section of the United States

F. T. Persinger
Manager

THE BEST SERVICE COMPANY

212 Walker Building
Minneapolis, Minn.

SCHOOL BOARDS: If you need Teachers, Superintendents or Principals, let us co-operate with you.

If you are looking for a position, we can place you.

The right teacher for the right place—prompt service.

ALBERT

25 E. Jackson Boulevard.

Chicago, Illinois.

Established 1885—Still under same active management. Best Schools and Colleges permanent clients. Best qualified men and women on our available list. Prompt service.

Other Offices—New York, Denver, Spokane.



Double-Room School Building at Westfield, N. J., constructed throughout of Ambler Asbestos Building Products.

Erect Permanent Fireproof School Buildings at one-third the cost of Brick or Stone

Meet the need for increased school capacity next term with A.B.C. School Buildings. Save not only in the first cost, but eliminate future expense of paint, repair or upkeep of any kind.

Housing an increasing number of children with an appropriation that does not keep pace with the demands made upon it is the big problem of the School Board. A.B.C. School Buildings are attractive in appearance, are easily heated, and constructed to withstand the hard knocks that all schoolhouses must endure.

All material complete, except foundation, in one, two and four-room units, these buildings can be erected quickly by a local contractor. They are not makeshift affairs, but **permanent**, fireproof, substantial buildings that meet the building code requirements of your State Board. In outlying districts and small towns, these schools fill present requirements quickly and later, when community buildings are put up, they can be moved or used as lunchrooms, manual training workshops, etc.

Tell us the number of children you have to house and we will tell you quickly what the necessary building will cost, ready to occupy. We will send you a booklet, together with a list of cities and towns now using A.B.C. School Buildings.

Asbestos Buildings Co., Dept. S,

2013 Market St., Philadelphia, Penna.

Please send, without obligation to me, information on items checked:

- Details of single-room and double-room schoolhouses constructed throughout with Ambler Asbestos Building Products.
- Information on the use of Ambler Asbestos Lumber, Ambler Linabestos Wallboard and Ambler Asbestos Shingles in schoolhouse construction.

Name and Position.....

Address

Asbestos Buildings Company

2013 Market Street, Philadelphia, Penna.

NEW YORK OFFICE
253 Broadway
Phone Barclay—4876

PITTSBURGH OFFICE
228 Pennant St.
Phone 1057—R—Locust

School Goods Directory

The names given below are those of the leading and most reliable Manufacturers, Publishers and Dealers in the United States. None other can receive a place in this Directory. Everything required in or about a schoolhouse may be secured promptly and at the lowest market price by ordering from these Firms.

AIR CONDITIONING APPARATUS

American Blower Company
Buckeye Blower Company
Nelson Corporation, The Herman
Ozone Pure Airifier Company

ASH HOISTS

Gillie & Geoghegan

AUDITORIUM SEATING

American Seating Co.
Heywood Wakefield Co.
Kundt Company, The Theodor
Peabody School Furniture Co.
Peter & Volz Co.
Steel Furniture Company

BASEMENT SASH, STEEL

Detroit Steel Products Company
Detroit Steel Products Company

BLACKBOARDS—COMPOSITION

Beaver Products Co., Inc., The
Beckley-Cardy Co.
N. Y. Silicate Book Slate Co.
Rowles Co., E. W. A.
Standard Blackboard Company
Weber Costello Co.

BLACKBOARD RENOVATOR

Mohawk Slate Machine & Mfg. Co.

BLACKBOARD-SLATE

Keenan Structural Slate Co.
Natural Slate Blackboard Co.

Penna. Structural Slate Co.

BLEACHERS

Leavitt Mfg. Company

BOILERS

Kewanee Boiler Company

BOOK CASES

Globe Book Company

BOOK COVERS

Holton Patent Book Cover Co.

Iroquois Publishing Company

Peckham, Little & Co.

Walraven Book Cover Co., A. T.

BOOK PUBLISHERS

American Book Company

Educational Publishing Company

Educational Bindery Company

Heath & Co., D. C.

Houghton, Mifflin Co.

Iroquois Publishing Company

Laddaw Brothers

Lippincott & Co., J. B.

Little, Brown & Company

Newson & Company

Palmer Co., A. N.

Pitman & Son, Isaac

BRUSHES

Palmer Company, The

Robertson Products Co., Theo. B.

BUILDING MATERIALS

Asbestos Buildings Company

International Casement Co., Inc.

Detroit Steel Products Company

Duriron Co., Inc., The

Indiana Limestone Quarries Assn.

Knapp Bros. Mfg. Company

National Bldg. Granite Quarries Assn.

National Terra Cotta Society

N. W. Expanded Metal Company

Structural Slate Company

BULLETIN BOARDS

Paddock Cork Company

BUSES

International Harvester Co. of America

CAFETERIA EQUIPMENT

Coe Manufacturing Company

Pick & Company, Albert

Sani Products Co., The

Van Range Co., John

CHALK TROUGHS

Dudfield Mfg. Company

CHEMICALS

Hill Chemical Co., Henry

CLOCKS—PROGRAM

International Time Recording Company

Landis Eng. & Mfg. Co.

Standard Electric Time Co.

CRAYON

American Crayon Co.

Binney & Smith

National Crayon Co.

Peckham, Little & Co.

Pencil Exchange, Inc.

Rowles Co., E. W. A.

Weber Costello Co.

DEAFENING QUILT

Cabot, Inc., Samuel

DIPLOMAS

Welch Mfg. Co., W. M.

DISHWASHERS

Colt's Patent Fire Arms Mfg. Co.

DISINFECTANTS

Palmer Company, The

Robertson Products Co., Theo. B.

DOMESTIC SCIENCE EQUIPMENT

A. B. Stow Company

Christiansen, C.

Freeport Gas Machine Company

Keweenaw Mfg. Company

Peterson & Co., Leonard

Pick & Co., Albert

Sheldon & Co., E. H.

Van Range Co., John

DOOR CHECKS

Norton Door Closer Co.

Sargent & Company

DOOR MATS

Heywood-Wakefield Co.

DOORS, STEEL-FIREPROOF

Detroit Steel Products Company

DRAFTING ROOM FURNITURE

Christiansen, C.

Economy Drawing Table & Mfg. Co.

Keweenaw Mfg. Company

Sheldon & Co., E. H.

DRAWING MATERIALS

Davis & Reynolds

DRINKING FOUNTAINS

Murdock Mfg. & Supply Co., The

Nelson Mfg. Company, N. O.

Rundle-Spence Mfg. Company

Taylor Company, Hasley W.

Wolf Manufacturing Co.

DRINKING STRAWS

Coe Manufacturing Company

ELECTRICAL EQUIPMENT

American Wiremold Co.

Adam Electric Co., Frank

American Wiremold Co.

ELECTRIC WIRING

ERASERS

Adam Electric Co., Frank

Palmer Company, The

Rowles Co., E. W. A.

Weber Costello Co.

ERASER CLEANERS

Lynn Company, James

Weber Costello Company

ERASERS

American Fence Construction Company

Anchor Post Iron Works

Cyclone Fence Co.

Fiske Iron Works, J. W.

Page Fence & Wire Prod. Assn.

ERESCAPE—SPIRAL

Dow Company, The

Standard Conveyor Company

EXIT LATCHES

Sargent & Company

Smith Hardware Co., F. F.

Vonneut Hardware Co.

FIREFPROOF DOORS

Dahlstrom Metallic Door Co.

FIREFPROOFING MATERIALS

Asbestos Buildings Company

FLAGS

Annn & Co.

FLAG POLES

Nelson Mfg. Co., N. O.

FOOT COVERING

Heywood-Wakefield Co.

FLOORING

Maple Flooring Mfrs. Association

Master Builders Co., The

Oak Flooring Adv. Bureau

FLOORING—COMPOSITION

Asamble Company

FLOORING—MASONIC

Moulding Brick Co., Thomas

FOLDING PARTITIONS

Wilson Corp., Jas. G.

FURNITURE

American Seating Co.

Beckley-Cardy Co.

Columbia School Supply Company

Conradts Mfg. Company

Detroit School Equipment Co.

Economy Drawing Table & Mfg. Co.

Inner Braced Furniture Co.

Kundt Company, The Theodor

National School Equipment Company

Peabody School Furniture Co.

Peter & Volz Co.

Readsboro Chair Company

Reed Rotary Adjustable Seat Co.

Rowles Co., E. W. A.

Scientific Seating, Inc.

Standard School Equipment Co.

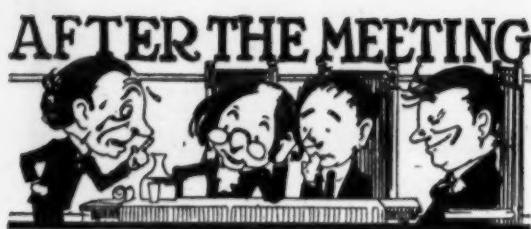
Wiese Laboratory Furniture Company

Wells Manufacturing Co.

GAS STOVES

A. B. Stove Company

Gasoline Stove Co.



Reversible.
Teacher—"What is a geyser?"
Pupil—"A waterfall going up."—Life.

Maude—Sarah has taken up commercial art.
Molly—Indeed! And what does she draw?
Maude—Her husband's salary.—Chicago Tribune.

The Old Ones are Best.
"James have you whispered today without permission?"

"Only wunst."
"Leroy, should James have said 'wunst'?"
"No'm, he should have said 'twicet'."—Boston Post.

His Teacher.
"Who is the greatest man today?"
"Lloyd George."
"Who is the greatest woman?"
"My teacher."

A Logical Question.
Pupil—What keeps us from falling off the earth when we are upside down?

Teacher—The law of gravity, of course.

Pupil—Well, how did folks stay on before the law was passed?

Help Wanted.
"Is this the Fire Department?" yelled the excited chemistry professor over the phone.
"Yes, what do you want?"

"How far is it to the nearest alarm box? My laboratory is on fire and I must turn in the call at once!"

A Legitimate Protest.
Received by a school superintendent from the fond but irate parent of a young man who had been sent home as unsatisfactory from an olfactory point of view.

Dere Sir:—In answer to your letter I fail to see any thing on him and you should be more conscience in your remarks and find out what your tawken about. the child is clean and has no odder and more of it I suppose the rest of the school does not smell like a Rose.—Will Auld, his father.—Journal Am. Med. Assn.

Calisthenics and Housework.
"Physical culture is awfully interesting!" cried the eager girl who had just come back from boarding school for a vacation. "Look, papa, to develop the arms I grasp this rod in this way and then move it slowly from right to left. Do you see?"

"Wonderful!" replied her father in admiration. "What extraordinary things teachers have discovered! If you had a bundle of straw at the end of that rod you'd be sweeping."—Youths Companion.



DEATH OF MR. MEADOW.

One of the oldest school furniture men in the United States, Joseph Loyd McAdow of St. Louis passed out of life on April 23rd. He had been engaged in the school furniture business in St. Louis over 34 years.

Mr. McAdow was born in Ohio, August 19, 1853 and removed to Missouri in 1866. He attended school at Jefferson City, Mo., and as a young man he became a telegrapher for the Missouri Pacific Railroad at Jefferson City. In 1874 he moved to St. Louis and became book-keeper for Chas. Scribner Sons, school book publishers in Chicago and later he removed to Chicago to enter the employ of Hadley Brothers and Kane as office manager. This firm handled school supplies and was the predecessor of the Thomas Kane & Company. Mr. McAdow remained with the Thos. Kane & Co., until April 1st, 1889 when he returned to St. Louis to become manager for J. B. Merwin School Supply Company.

In 1890 he started in business for himself under the firm name of the St. Louis School Furnishing Company with offices in the Bowman Building. His business was largely as a subcontractor furnishing and installing blackboards. It gradually developed into a general business in supplies, furniture and equipment and was later incorporated with a number of associations as stockholders and officers.

Mr. McAdow was always scrupulously honest in carrying out his contracts and meeting his obligations. His business dealings were characterized by absolute sincerity and he enjoyed the respect of both his customers and competitors. He is survived by his wife.

BUYERS' NEWS.

Daylighting Schools. The caption of this paragraph is the title of a valuable booklet on the lighting and ventilation of school buildings just published by the Truscon Steel Company, Detroit, Mich.

The pamphlet includes a section on the fundamental principles of lighting schoolrooms by Architect John J. Donovan of Oakland, Calif., in which the fundamental elements of building site, glass area, window construction and window shading are taken up. The second section takes up window ventilation as recommended by the New York State Commission on Ventilation.

The balance of the book includes complete details and specifications of Truscon windows of the projected, standard, counter-balanced, and double hung types. For each type there is ample information for school building committees and architects to consider the respective

merits and uses and to thoroughly understand their arrangement, installation and specification.

"Daylighting Schools" is a type of constructive publicity which renders a direct service to schools and education, because it makes for an understanding of the fundamental principles and of the most economical and utilitarian methods of meeting school lighting problems. A copy should be in the hands of every responsible school authority.

The Truscon Steel Company has also issued for the use of school building committees and architects a complete portfolio of drafting room standards illustrating the complete details for installing Truscon windows and Truscon sash under a large variety of circumstances.

The firm has also issued a valuable booklet on Truscon Construction and Loading Tests of Truscon Construction under a wide variety of conditions.

New Shade Factory—The Luther O. Draper Company has recently moved into its new model factory at Spiceland, Ind., where the well-known Draper adjustable shades are manufactured under ideal conditions. The factory is one story high, entirely modern in equipment, machinery,



LUTHER O. DRAPER SHADE COMPANY.

and carefully arranged for efficient and economical handling of materials and processes. The plant makes possible the high quality of finish which distinguishes Draper school shades.

New WeiSteel Catalog. WeiSteel Compartments is the title of the newest catalog of the Henry Weis Manufacturing Co., Atchison, Kansas. The catalog is one which will delight school board officials and purchasing agents as well as architects and draftsmen. It contains not only the complete details of construction and arrangement of the WeiSteel compartments, but also shows typical applications in a wide variety of buildings and for a wide variety of purposes. School men will be particularly interested in the typical installation of dressing rooms for gymnasiums and swimming pools, toilet rooms for schools and colleges, dressing rooms for medical inspection and hospital rooms, shower compartments, etc. The catalog contains a considerable number of splendid photographs of installations, a complete illustrated list of standard units and hardware equipment, and a list of selling agencies.

The catalog will be sent on request to any reader of the Journal.

New Portables. "A better Portable Schoolhouse" is the title of a circular just issued by the American Portable House Company of Seattle, Wash., announcing seven new models of the Type C, "American" Portable Schools. These new models are intended to meet the needs of school authorities who desire to group their portables and who are anxious to give the best possible service to all the children all the time. The circular will be sent on request.

New Univent Catalog. The Herman Nelson Company, Moline, Ill., has just issued a new catalog of the Univent heating and ventilating system as applied to school buildings. The catalog offers a thorough discussion of the need for heating and ventilation. It deals with the history and the development of modern ventilating systems and the character of the service rendered by the Univent system. The catalog is very fully illustrated and contains complete specifications of the several types of Univent.

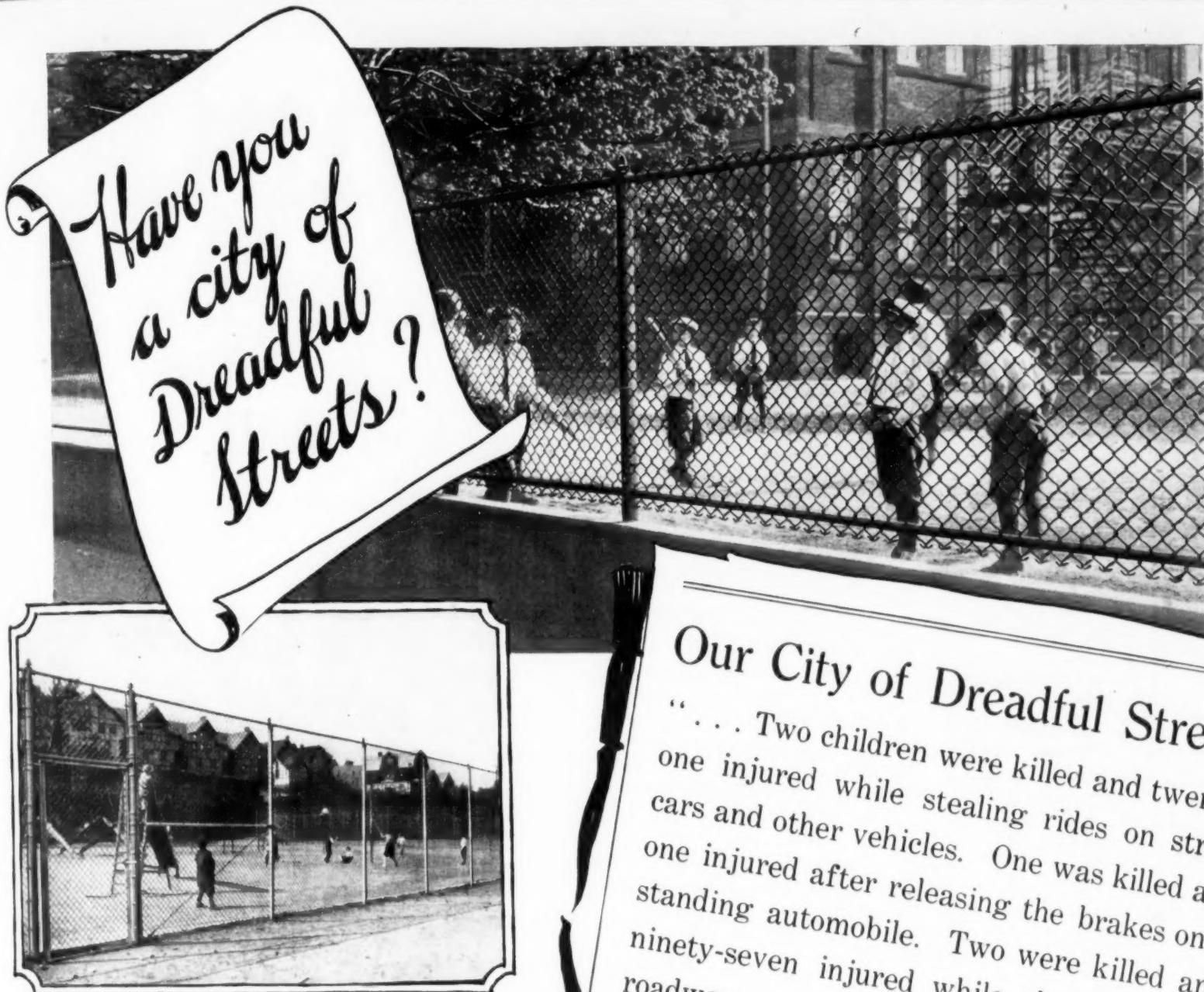
New Directors. Dudley Cowles of Atlanta, Georgia and Elijah C. Hills, Ph. D., of Berkeley, Calif., have been elected members of the board of directors of D. C. Heath & Co., educational publishers.



Defined.

Teacher: Johnny, What is a fish-net?

Johnny: A lot of holes tied together with a piece of string.—Life.



Anchor Post Playground Fences

PROTECT your children. Give them better places to play. Surround your playgrounds with that unfailing safeguard against ruthless traffic dangers—Anchor Post Fence.

Anchor Post Playground Fences provide ideal child protection. They are high, unclimbable and impregnable. Fabric of heavy steel chain link mesh. Strong steel posts for uprights. Every part galvanized throughout to resist rust.

Take a minute now to ask for complete information on Anchor Post Playground Fences. It may mean the saving of many little lives. Just phone, write or wire our nearest office or sales agent.

ANCHOR POST IRON WORKS, 52 Church Street, New York, N. Y.

BOSTON, MASS.
79 Milk Street
CHICAGO, ILL.
8 So. Dearborn Street

CINCINNATI, OHIO
141 East Fourth Street
CLEVELAND, OHIO
Guardian Building

DETROIT, MICH.
Penobscot Building
HARTFORD, CONN.
902 Main Street

MINEOLA, L.I., N.Y.
167 Jericho Turnpike
PHILADELPHIA, PA.
Real Est. Trust Bldg.

PITTSBURGH, PA.
541 Wood Street
ROCHESTER, N. Y.
48 Berry Street

Sales Agents in Other Cities

FIRM — BECAUSE THEY ARE ANCHORED

Anchor Post Fences

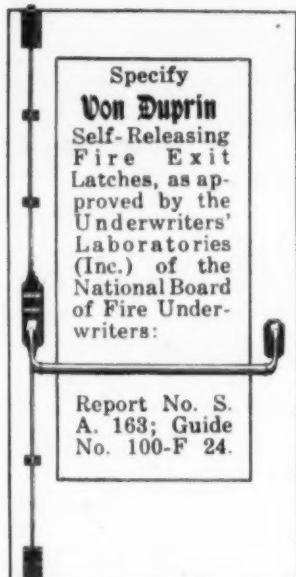
PERMANENT — BECAUSE THEY ARE GALVANIZED



Von Duprin

Self-Releasing Fire Exit Latches

Building Good Will



A few years ago the general public did not know the purpose of the **Von Duprin** latches on exit doors.

They found out that pushing or pulling the cross bar released the latch bolts—and in time of emergency the natural instinct to rush at the exit doors caused the **Von Duprins** to operate, making safe exit certain.

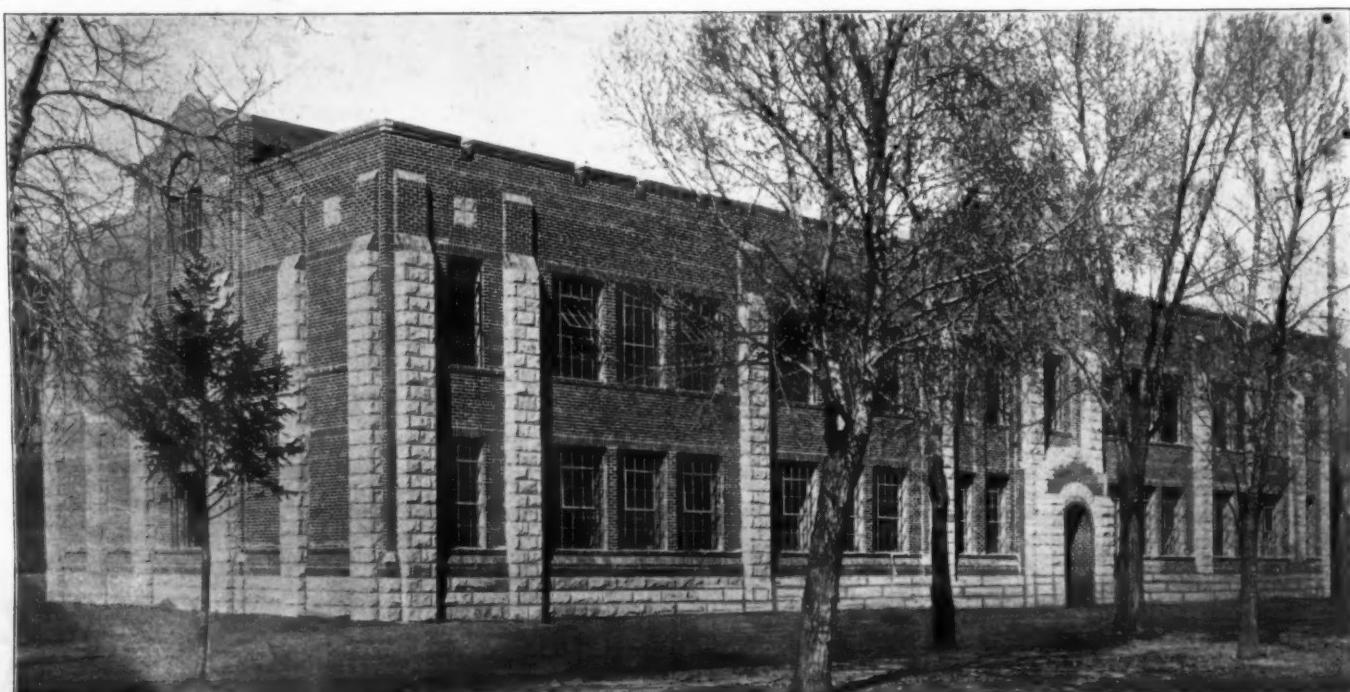
This condition has changed; the average man or woman now knows what **Von Duprin** latches are for; and knows that the architect and building owner who installed them are interested in the safety of the occupants.

Today, people have greater confidence in the building which is **Von Duprin** equipped. The building owner is reaping the benefits of his forethought, in increased good will.

Ask for Catalog 12-C, or see "Sweet's," pages 1323-1327.

VONNEGUT HARDWARE CO.
Indianapolis, Ind.

*Monte Vista, Colorado,
Junior High School.
Mountjoy & Frewen, Denver,
Architects.*



MARBLELOID

*The Universal FLOORING
for Modern Buildings*



HAVE YOU A FLOOR WHICH IS BADLY WORN?

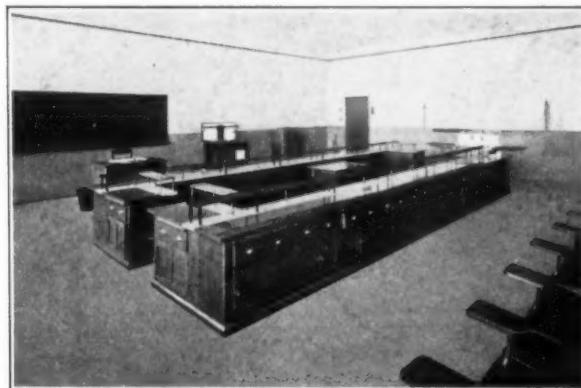
One of the qualities of Marbleloid *permanent* Flooring is that it is a material ideally adapted for re-surfacing old worn-out wood and concrete school floors.

This composition flooring is laid plastic over the old floor and in a few hours sets into a strong, warm, smooth-surfaced, modern floor which adds much to the appearance, serviceability and permanence of your school building. This Marbleloid Floor will not dust or chip, will be found certain and elastic for walking and will not require any expensive upkeep. It will permanently hold its color and attractiveness and prove easily

cleanable by flushing with water—qualities to be desired in school floors.

We install each Marbleloid Floor as well as manufacture the material and we will guarantee it to please you in attractiveness, longevity, warmth, strength and in all other qualities we claim for it.

If you have a worn floor in your building let our engineers tell you the cost of transforming it into a modern, fireproof and durable Marbleloid Floor—or if you are erecting a new building be sure to investigate the suitability of Marbleloid for its floors.



Use coupon below if you want an advisory estimate or our 32 page floor book.

THE MARBLELOID COMPANY, 465 Eighth Ave., New York

**USE
THIS
COUPON**

THE MARBLELOID COMPANY, New York City

Without obligating myself in any way please submit tentative estimates on the cost of your product installed complete for our building.....

Below are the approximate areas involved.

Floor..... Sq. Ft. Sanitary Base..... Lineal Ft. Wainscot..... Sq. Ft.

I have checked below the floor troubles we now have.

Our floors are

- New Concrete Cracking Cold
 Cement Finish Dusting Splintering
 Wood Noisy Rough

Name.....

Firm.....

Address.....

- Slippery
 Unsanitary
 Rotting

Please send Illustrated Bulletin on School Floors.

COMPLETE CONTROL OF PURE FRESH AIR WITHOUT DRAFT AND PROPER DIFFUSION OF LIGHT

POSSIBLE WITH

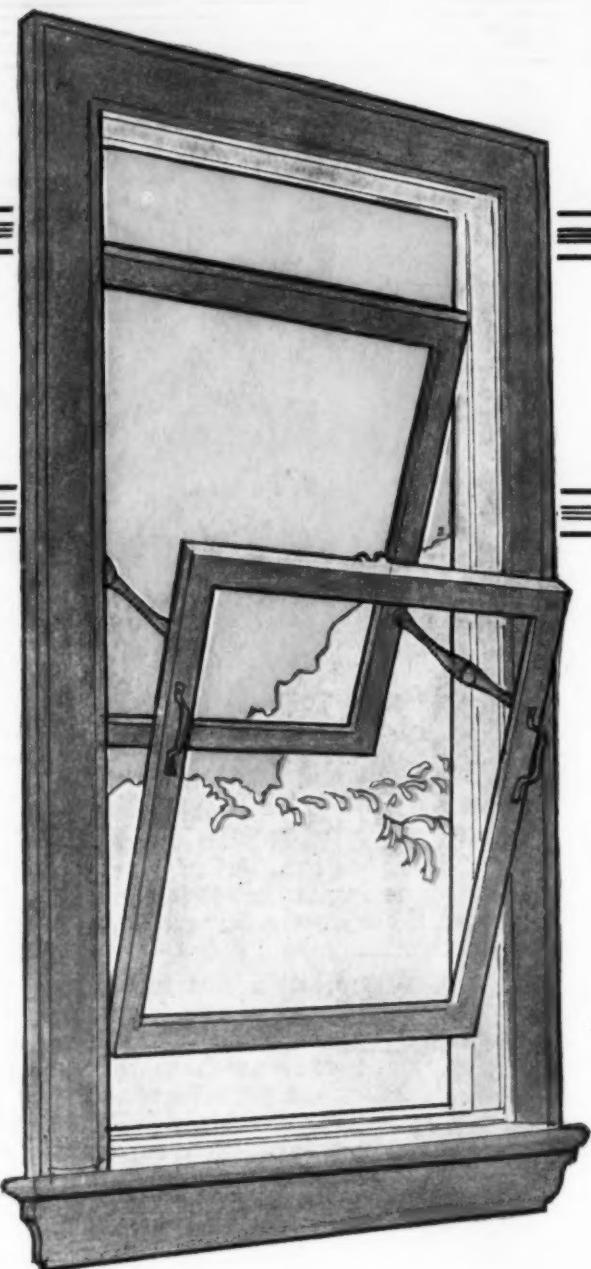
AUSTRAL WINDOWS

AUSTRAL WINDOWS in wood, steel and hollow metal construction, are specified by leading architects throughout the country for buildings where ventilation and control of light are important. Of importance are ventilation and control of light in schools, therefore AUSTRAL WINDOWS justify serious consideration of School Superintendents and Building Committees for new schools.

"AUSTRALIZING" your new school means not only a saving on the initial installation, but it represents a permanent investment in LIGHT and AIR with HEALTH and EFFICIENCY reflected in the Classroom.

AUSTRAL WINDOWS are self-balancing, reversible for cleaning, no cords to break, simple and durable of construction and cost no more than ordinary windows. AUSTRAL WINDOWS will eliminate dangerous drafts, pulleys, chains, weights, adjustable screws and all window trim and trouble.

Ventilation without direct draft and perfect control of light without interference with incoming air are both obtained when the school building is equipped with AUSTRAL WINDOWS.



AUSTRAL WINDOWS are so accurately balanced that they can easily be managed by a child.

Before deciding on the Window question write us for particulars regarding AUSTRAL WINDOWS.



A small cardboard model demonstrating the advantages of the AUSTRAL WINDOW will be mailed on request.

AUSTRAL WINDOW COMPANY

101 Park Avenue,

New York City